

FLIGHT

The AIRCRAFT ENGINEER & AIRSHIPS

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"FLIGHT" PHOTOGRAPHS.

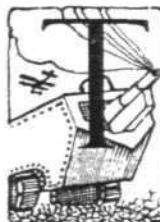
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DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list :—

1927	
May 12	.... "Aerial Survey," Maj. H. Hemming, A.F.C., before Inst. A.E.E.
May 15	.... Hampshire Air Pageant, Southampton Aerodrome, Hamble.
May 19	.... Aero Golfing Soc. (FLIGHT Cup), Addington.
May 19	.... The Royal Tournament, Olympia
May 23	.... "Steels for Aircraft," Sir Robert Hadfield, Bart., before Inst. A.E.E.
May 25	.... Inst. A.E.E. Visit to the National Physical Laboratory, Teddington, Middlesex.
June 4	.... Inst. A.E.E. Visit to Croydon Aerodrome.
June 4-16	.... Fourth International Aero Exhibition, Prague.
July 2	.... Royal Air Force Display.

EDITORIAL COMMENT.



HE one topic of conversation in aviation circles this week is the French attempt to fly from Paris to New York non-stop, and at the moment of going to press with this week's issue of FLIGHT, the outlook is somewhat serious, although we do not personally as yet share the view that the two famous

French aviators are necessarily lost. It should be recollected that their machine, a Pierre Levasseur

"Avion Marin," has a fuselage which is capable of keeping the machine afloat for many hours, so that although unable to get off the water, there is not necessarily any reason to suppose that disaster has overtaken the crew.

The earlier report to the effect that the machine had been sighted off Newfoundland is now rather discounted, and if, in fact, this report should prove incorrect, there is absolutely no telling where the machine came down. For all that is known at present, it may have had to come down shortly after leaving the Irish coast. On the other hand, it may have reached the vicinity of the Newfoundland banks, in which latter case it may have alighted close to a fishing vessel and the crew have been taken off. As few if any of these vessels are equipped with wireless, it might be many days, or even weeks, before news of a rescue got through.

Again, supposing that the machine had been compelled to alight in mid-ocean, all hope need not be given up. As we have already mentioned, the fuselage of the Pierre Levasseur is a boat-built structure, with stepped hull and watertight compartments. Unless serious damage was sustained on alighting, the hull by itself would keep the machine afloat for a considerable period. In fact, probably until the lower wing was so badly damaged as to give way, in which case the wing float support would be gone and the machine lose its lateral stability on the water. In this connection account should be taken of the support which the petrol tank might afford. Provided a fairly long distance had been covered

before the machine had to alight, the buoyancy of the tank would amount to several thousand pounds, and if the tank were fitted with jettison valves, or with means for emptying it after alighting, the whole of the tank's buoyancy, or some 10,000 lbs. would be available for flotation. In that case, even if the lower wing broke up and the wing tip floats became useless, the machine would probably not sink, although it would almost certainly turn turtle, and the position of the crew would become precarious.

Provided a reasonably good " landing " was made, there are many chances of the two gallant Frenchmen being picked up. In this connection one is inevitably reminded of the experience of the late Mr. H. G. Hawker in 1919 when he and his navigator Mackenzie Grieve alighted in the middle of the Atlantic and were picked up by a Danish vessel which was not fitted with wireless, and which was, therefore, unable to transmit the news of her rescue of the two aviators for several days. The route followed by Nungesser and Coli is very nearly identical with Hawker's and although somewhat far removed from the regular steamer " lanes," is not entirely devoid of traffic. We do not know what the French machine carried in the way of food and drink for the crew, but it is to be assumed that a supply sufficient for at least several days was on board. If so, there is still hope.

Finally there is the possibility that the machine did cross the Atlantic, and that it came down near the coast of either Newfoundland or Nova Scotia, in one of the numerous sheltered bays or sounds, where under conditions of poor visibility, it might well remain unnoticed for a considerable time. Altogether, although the prospects are not bright, it would be a mistake to take for granted that a very gallant attempt by our French friends has ended disastrously, and we hope next week to be able to record that Nungesser and Coli are safe.

**The
Hampshire
Pageant**

On Sunday next, May 15, will be held at the Hamble aerodrome of the Hampshire Aero Club the first air meeting to be organised by that club



THE SERVICE AFRICAN FLIGHT : The four Fairey III.F biplanes, fitted with Napier "Lion" engines, on which the R.A.F. flight from Cairo to Cape Town and back is being carried out under the command of Air-Commodore Samson, C.M.G., D.S.O., A.F.C. Our picture shows the machines starting from Heliopolis on March 30. They reached the Cape on April 21, and are scheduled to start the return journey on May 9, arriving back at Cairo on May 22.

under the competition rules of the Royal Aero Club. The Hampshire Air Pageant, or H.A.P., promises to be a most interesting affair, as the list of events and entries published elsewhere in this issue indicates. It is to be regretted that owing to lack of machines the events which were to have given the meeting a distinctly "amphibious" character had to be cancelled, but in spite of this fact, the programme has a certain marine touch about it, owing to the presence and participation of a number of flying boat and seaplane types. Let us hope that "H.A.P.2" will include some items representing the seaplane side by having races specially for marine aircraft.

What we particularly like about "H.A.P.1" is the variety of items which the programme shows. The meeting is, in fact, an air display rather than a race meeting, and we venture to think it will, on that account, hold the public interest to a much closer extent than is the case with a meeting at which nothing but air races is provided by way of entertainment. Such was the case with the Bournemouth Easter meeting, and we are rather sorry to see that the Whitsun meeting at Bournemouth is to be merely a repetition of that. It is very difficult indeed to keep up the interest throughout a two or three days' meeting when one race is much like another, and a little "comic relief" such as that planned for the Hampshire Pageant should be very welcome.

Another promising feature of the Hampshire meeting is the very large number of entries for the comparatively few races. We should say off-hand that the entries lists for the various races represent a "record" for a British flying meeting, and thus it may be assumed that the races, few enough in number to be interesting, will be well worth watching. With a cheap train service from London, and good facilities for reaching the aerodrome by road and for parking the cars, the Hampshire meeting should be a great success, and everyone who can possibly manage to do so should make a point of attending on Sunday next.

A complete list of entries and other programme details will be found on pp. 290-292.

THE ROHRBACH "ROCCO" FLYING-BOAT

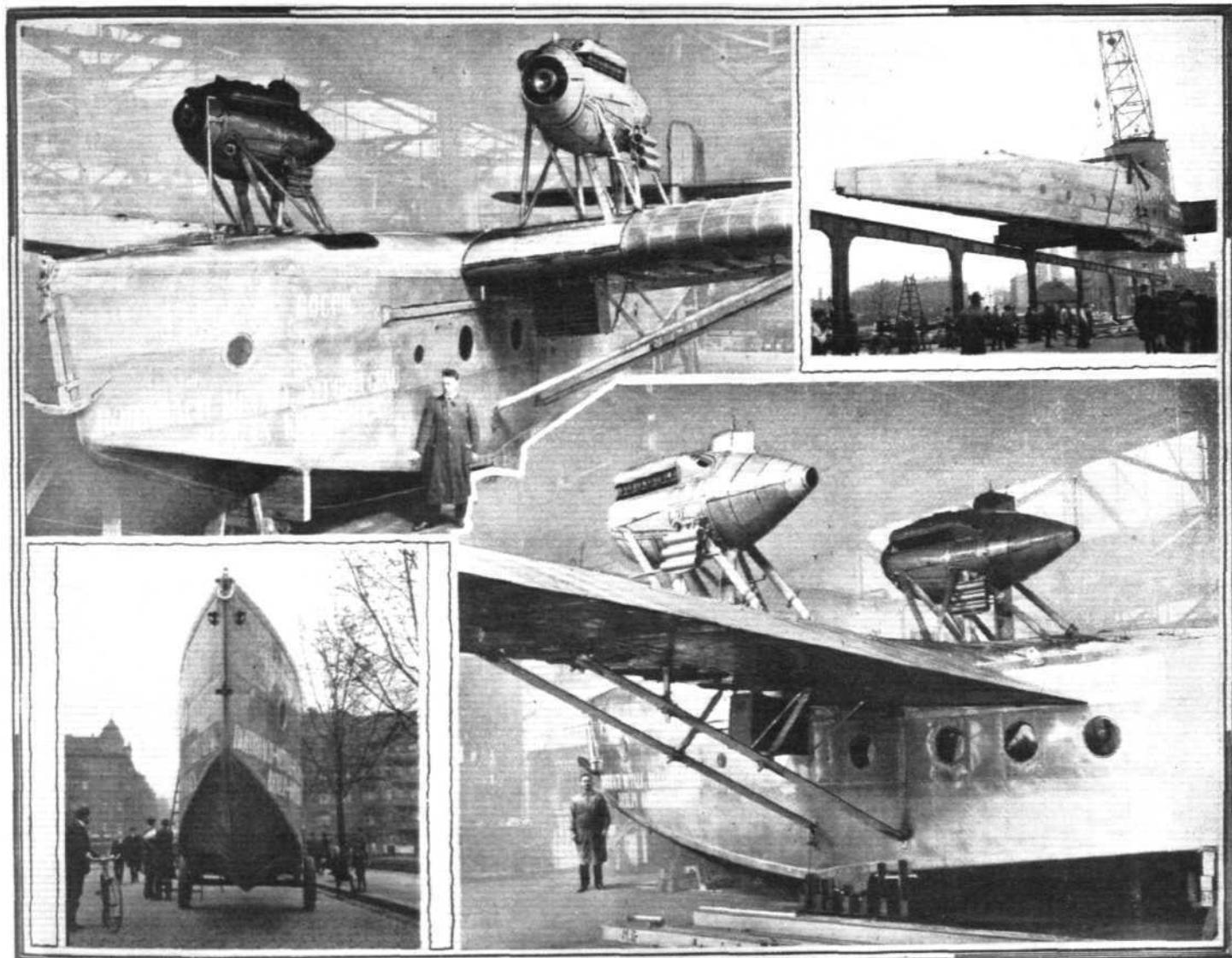
New German Commercial Machine with Two Rolls-Royce "Condor" Engines

DR. ROHRBACH, the famous German aircraft designer, has named his latest type of flying-boat "Rocco." We are not quite certain what is the exact meaning of this word, or whether it has any meaning, in German, but from the size of the boat to which it is applied it would appear reasonable to assume that it is the equivalent of the English "Roc," described by Webster as "A fabulous mythical bird of Arabia, so huge that it bore off elephants to feed its young." We do not know if Dr. Rohrbach has any intention of indulging in this particular form of baby-snatching with his new flying-boat. At any rate, it scores off the Roc of Arabia in being a long way from being mythical. In fact, there is some-

chord, constant-section wings of the early Rohrbach, the wings of the "Rocco" have tapered tips. Fundamentally, however, the new boat is typically Rohrbach, with a monoplane wing surmounted by two engines, a flat-sided narrow beam hull steadied when on the water by two outboard wing floats. A large dihedral angle is a feature of the design, this doubtless being a result of the high position of the engines.

Constructional Features

As in the case of earlier Rohrbach flying-boats, the "Rocco" is of all-metal construction, the term "all-metal" in this case being synonymous with duralumin construction, which



THE ROHRBACH "ROCCO" : The two larger views show the central portion of the hull, the mountings and cowlings of the two Rolls-Royce engines, and the wing bracing struts. In the lower left-hand corner is a view of the hull being transported through the streets of Berlin, the nose having the appearance of the bows of a liner. In the top right-hand corner a view of the hull, upside-down, being hoisted by a crane.

thing quite offensively real about it. Like most Rohrbach machines, certainly all Rohrbach flying-boats, the "Rocco" is an ugly beast, what with its slab-sided boat hull, high freeboard and narrow beam. But it seems that it is a flying-boat meant for serious business, so that one may forgive any shortcomings in the matter of appearances. For the matter of that, our modern liners are not exactly things of beauty compared with the old full-rigged ships, and in this mechanical age utility is apt to come before looks, although a few inspired aircraft designers have managed to retain the one without sacrificing the other.

In its general design and construction, the Rohrbach "Rocco" is similar to the series of flying-boats previously designed by Dr. Rohrbach, but the effect of evolution is traceable in the design. Thus, in place of the constant-

is the material used exclusively with the exception of a few wing fittings and bracing struts, which are of steel. A feature of Rohrbach construction is that the covering or skin, as it is usually called in modern aircraft parlance, is designed as a stress bearing part of the general structure. This applies of course, to flying-boat hulls in general, but in the case of the Rohrbach machines, it also applies to the wings, which are covered with sheet duralumin forming part of the wing box. This wing box may be considered as one very large spar, extending from tip to tip of the wing and, in a fore and aft direction, very roughly half-way in the wing chord to a short distance aft of the leading edge. This wing box is built up in the form of a front and rear member corresponding approximately to the front and rear spars in more orthodox types of construction, joined at intervals by fore and aft

bulkheads or formers, the skin being riveted to both spars and formers. In addition, the thickness of the skin varies from point to point in the wing according to local stresses, the change being effected partly by using sheet duralumin of different gauges and partly by lamination.

The more or less closed box construction of the Rohrbach wing has necessitated a somewhat unusual arrangement of the leading and trailing edges. These are hinged to front and rear spar at short intervals, and are attached in such a manner that by undoing a number of small bolts the leading and trailing edges can be swung up or down in such a manner as to enable an inspection of the interior of the wing box to be made, or even minor repairs to be effected. Also, should any sea water have got inside the wings, in taxying in a very rough sea, for instance, the water can be drained out, and leading and trailing edges opened so as to enable air to get at the interior of the wing and dry up any water that may have collected in out-of-the-way corners.

The boat hull is of the flat-sided variety, this form evidently having been chosen in order to avoid as far as possible the somewhat expensive panel beating which is necessary where sheet material has to be bent over a double curvature.

An exception is formed by the planing bottom of the hull, which, in the latest type of Rohrbach, is of pronounced "V" formation, the flat-bottomed hulls of the earlier Rohrbachs having, we believe, given a certain amount of trouble owing to leakage as a result of hard landings. There

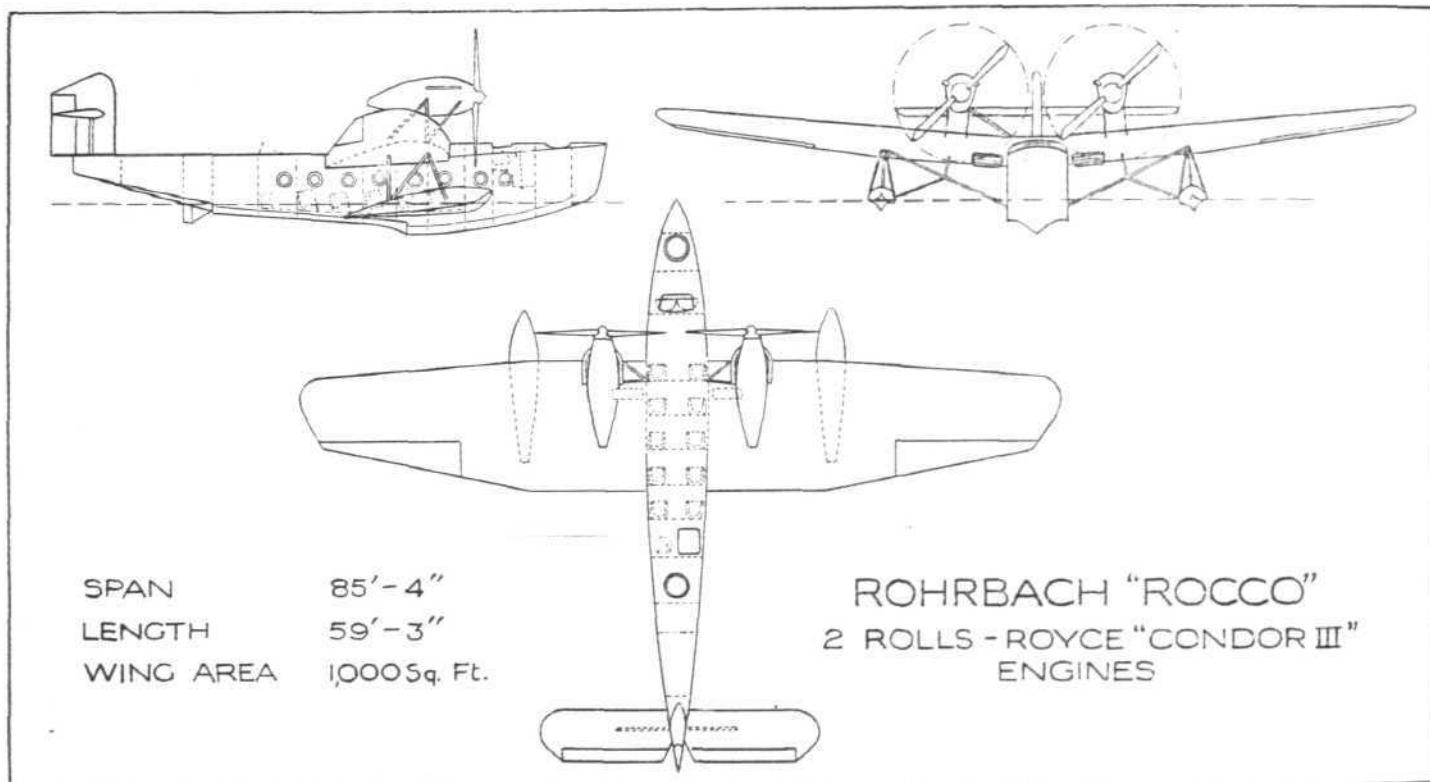
a wing float is punctured, and the machine begins to heel over, the wing tip will meet the water, and by the buoyancy of the wing tip boxes, acting on a long lever arm, will effectively prevent the machine from turning right over, although it would naturally be over at a rather uncomfortable angle.

Hull Accommodation

The boat hull of the Rohrbach "Rocco" is, as already mentioned, divided into a number of compartments. The nose of the boat forms what is termed a "collision compartment," which is separated from the rest of the boat by a watertight bulkhead. In this compartment is carried the gear for handling the machine on the water, such as anchor ropes, boat hooks, drogues, etc. This collision compartment would protect the rest of the boat in case of accidental ramming of any obstacle resulting in a leak in the forward part of the hull.

Aft of the collision bulkhead is the pilot's cockpit, in which are placed two seats side by side, and all the controls, instruments, etc. Owing to the situation of the cockpit ahead of the wings, the view is particularly good in all directions, especially as the boat hull is of relatively narrow beam.

Behind the cockpit is the wireless compartment, which has a length of 0.92 m. (3 ft.) and a width of 1.5 m. (4 ft. 11 ins.). In addition to the wireless outfit, table, seat, etc., this compartment also contains the auxiliary engine,



THE ROHRBACH "ROCCO" : General Arrangement Drawings, to scale.

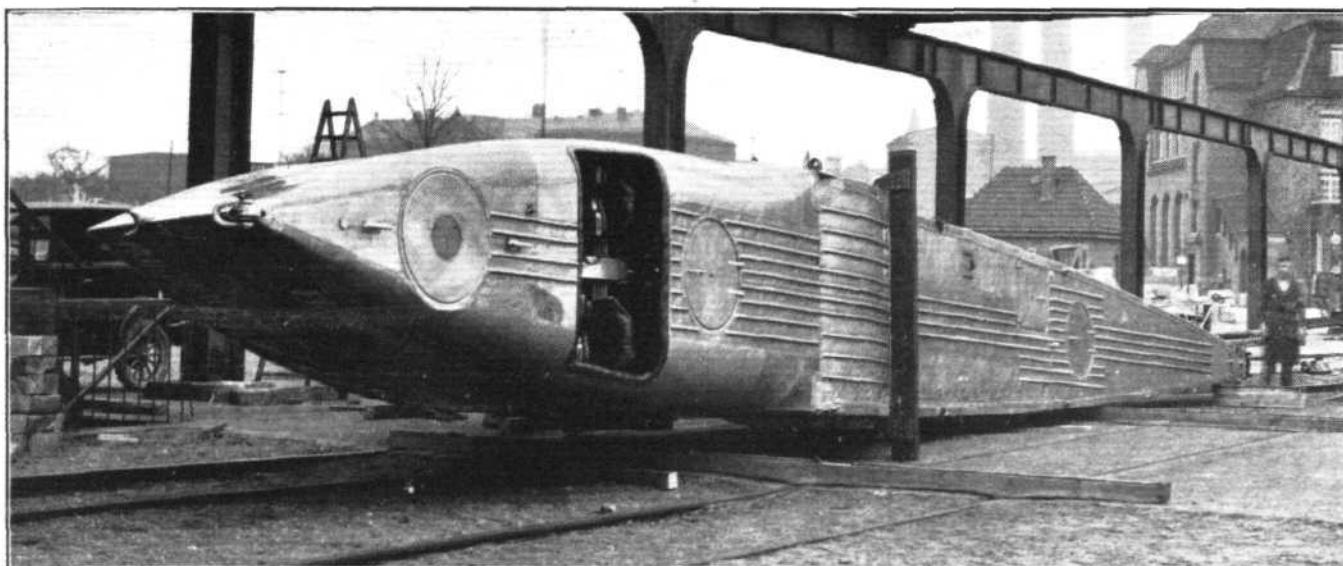
are two steps in the hull, as in most modern flying-boats, the steps being of the closed variety.

In the detail construction of the hull, as well as in that of the wings, only flat sheet and open sections are employed in order to afford cheap construction and ease of inspection. Thus, it is claimed that no hidden rivets are found anywhere in the structure, all riveting being open to inspection from both sides. Furthermore, both during actual construction and in use later on the open sections employed render the operation of protecting the material against corrosion easier and more certain. A number of bulkheads divide the boat hull into watertight compartments, and all the doors in the cabin are so made as to be watertight when closed, thus reducing the risk of sinking in case of damage in one compartment. It is even claimed that the buoyancy of the hull is such that with all doors and windows closed the machine would remain afloat with two adjacent compartments damaged.

A similar principle applies to the out-board wing floats, and as a safeguard against the machine turning over in case of damage to a wing float the outer few feet of the wing itself have been formed into watertight boxes, so that if

which is so arranged as to reduce the noise of it to a minimum, by being housed inside a sound-proof compartment. The auxiliary engine is a Bristol gas starter, which, in addition to its main function of starting the engines, is also employed for driving the electric generator and the bilge pumps.

The saloon has a length of 6.8 m. (22 ft. 4 ins.) and a width of 1.7 m. (5 ft. 7 ins.) and there is ample head room for standing upright throughout. A watertight bulkhead divides the saloon into two separate compartments with a watertight central door giving communication between the two. The forward compartment has accommodation for four passengers and the aft one for six. Entrance to the saloon is through a hatchway in the deck of the hull at the aft end of the saloon. The saloon is covered with leather and other material which is so arranged as to absorb a considerable amount of the noise from the engines. The seats have adjustable backrests and are claimed to be extremely comfortable. The windows of the saloon are in the form of round portholes and like the various doors and hatch covers, are so made as to be watertight when closed. The saloon is well ventilated and heated and by each passenger's seat there is an electric light.



THE ROHRBACH "ROCCO" : This view of the hull lying on its side gives a good idea of the placing of the cockpit, hatch covers, etc. Note the longitudinal flutings which stiffen the deck so as to enable the crew to walk along it.

Aft of the cabin is a lavatory and aft of that again is the luggage and goods compartment, which is entered through a hatch in the deck, and which measures 1·5 m. (4 ft. 11 ins.) in length with an average width of 1·3 m. (4 ft. 3 ins.). Special provision has been made for lashing the luggage in such a way as to prevent it from shifting.

Power Plant

The engines used in the Rohrbach "Rocco" are Rolls-Royce "Condors" Series III of 650 h.p. each. They are supported on tubular structures above the wing and neatly cowled in. It is claimed that with this high position of the engines, the tractor air screws are well clear of any spray that might be thrown up in a rough sea. Behind the engines and inside the cowling are the two oil tanks, while the petrol tanks form the leading edge of the wings near the hull. It is claimed that by having no petrol in the hull and with the tanks exposed in this manner, there is practically no fire risk, as any petrol fumes are instantly blown away. Needless to say, however, fire extinguishers are carried and all the usual precautions taken against fire. The low position of the tanks in relation to the engines has, of course, necessitated the use of petrol pumps, but it is claimed that these are now so reliable that little added risk of breakdown of the petrol system arises through their use. The modern practice in this country is, of course, to place the petrol tanks on the top plane, but in a monoplane like the Rohrbach this was naturally not possible, and instead the designer has chosen the arrangement described.

A very complete wireless equipment is carried on board consisting of sending and receiving apparatus for both telephony and telegraphy. When the machine is in flight the necessary current is produced by a windmill-driven generator, but another generator is carried in the hull and driven by the Bristol gas starter, so that should the machine be forced to descend, a small wireless pole carried on board can be erected and messages sent out from the auxiliary aerial. Dr. Rohrbach was, we believe, the first designer to provide masts and sails for a flying-boat, so that in case of total

engine failure the machine should be able to proceed under sail to the nearest coast or port, and in the "Rocco" such an equipment is provided.

Specification

Following are the main characteristics of the Rohrbach "Rocco" :—

Length, o.a.	19·3 m. (63 ft. 3 ins.)
Wing span	26 m. (85 ft. 3 ins.)
Wing area	94 sq. m. (1,010 sq. ft.)
Tank capacity	3,800 litres (836 gallons.)
Weight of machine bare	5,790 kg. (12,750 lbs.)
Service equipment	200 kg. (440 lbs.)
Total empty weight	5,990 kg. (13,190 lbs.)
Fixed equipment	460 kg. (1,010 lbs.)
Loose equipment	400 kg. (880 lbs.)
Crew of 3	250 kg. (550 lbs.)
Consumable load	1,600 kg. (3,520 lbs.)
10 passengers	750 kg. (1,650 lbs.)
Luggage	150 kg. (330 lbs.)
Total load carried	3,610 kg. (7,940 lbs.)
Total loaded weight	9,600 kg. (21,130 lbs.)
Permissible overload	900 kg. (1,980 lbs.)
Highest permissible total loaded weight	10,500 kg. (23,110 lbs.)
Full speed at sea level at normal load	220 km./h. (136·5 m.p.h.)
Cruising speed	168 km./h. (104·3 m.p.h.)
Landing speed	115 km./h. (69·3 m.p.h.)
Climb to 1,000 m. in 5·8 mins.—	3,150 m. (10,350 ft.)
Absolute ceiling	1,300 km. (808 miles).
Range with normal load and at cruising speed	2,400 km. (1,490 miles)
Range at full permissible load with full tanks and at cruising speed	These figures are guaranteed to ± 5 per cent.



Imperial Airship Routes

The presence in Canada of Major G. H. Scott, Officer-in-Charge of flying and training at the Royal Airship Works, Cardington, who is conferring with the Minister of National Defence and the Chief of the Canadian General Staff, is stimulating public interest in aviation. The Toronto City Council has invited Major Scott to be the guest of the city, and to study local airship mast sites, having visions of the time when Toronto may be the Western terminal of British Imperial Airways. Montreal believes that its position makes it a natural point for an inland terminal, whilst Halifax and Quebec are also evincing keen interest. The Minister of National Defence, Mr. Ralston, states that an order for a mooring mast has been placed in Great Britain, a part of the mast being made in Canada. For exactly the same purpose,

Group-Captain P. F. M. Fellowes, Director of Airship Development, accompanied by Mr. M. A. Gilett, Superintendent of the Airship Section of the Meteorological Office, has gone to South Africa, and will then go to Australia and New Zealand, returning to England via India towards the end of October.

A Martlesham Retirement

SQUAD.-LEADER T. H. ENGLAND, who has been officer commanding at Martlesham Heath Experimental Station for the past two years, has resigned his commission to become chief technical adviser on the flying side to Handley Page, Ltd. He joined the R.N.A.S. in 1914, flew the first American flying-boat in this country, served with the Mediterranean Fleet and the Grand Fleet, and went to Iraq after the war for duty before commanding at Martlesham Heath.



HAMPSHIRE AIR PAGEANT

ON Sunday, the 15th inst., the Hampshire Air Pageant, organised by the Hampshire Aeroplane Club—the youngest of our six light 'plane clubs formed under the Air Ministry scheme—is being held at the Hamble Aerodrome. From the programme of events, which we publish this week, it will be seen that a varied assortment of good things will be provided, all of which should go to make an enjoyable and successful afternoon.

In a previous issue of *FLIGHT* we gave particulars of the arrangements that have been made for this pageant, but perhaps it will be appreciated if we briefly outline these again here. In the first place, adequate and comfortable accommodation has been arranged for some 25,000 people, and, secondly, the organisers have seen to it that getting to and from the aerodrome, which is just outside Southampton, will be made as easy and speedy as possible. The Southern Railway, we understand, will be running special trains, at reduced fares, to the aerodrome from London and other chief centres, while, in addition, there will be motor services from various parts of the south of England, and special steamers from the Isle of Wight and Southampton district.

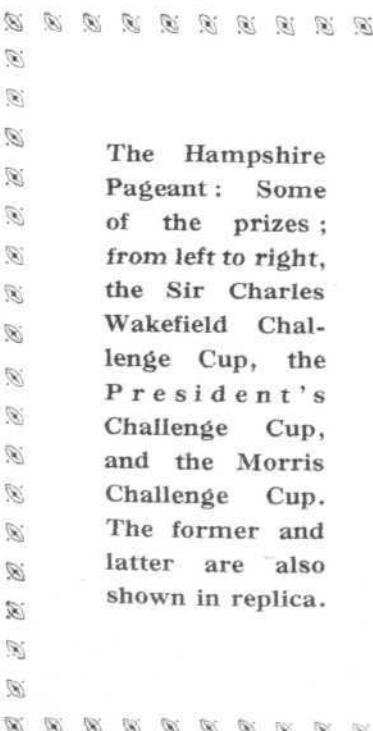
The aerodrome will be open to the public at 12 noon, the prices of admission being 5s., 2s., and 1s. (cars, 2s. 6d.) A musical programme has been arranged for the occasion,

and luncheon, tea, and light refreshments will be provided in all enclosures.

FOR the benefit of visitors to the Hamble Air Pageant on May 15 we have compiled the accompanying table of lap times and flying speeds, so that it is an easy matter, provided the lap time of any machine is known, to ascertain the approximate speed around the course. It should be pointed out that in compiling the table no attempt has been made to obtain very great accuracy, since it was thought that with amateur timing there would be little point in calculating the speeds to the last decimal, the more so as the whole basis of the table is the assumption that the Hamble course is exactly 11 miles in length, an assumption which, in all probability, is not strictly correct. However, the table may serve as a rough and ready guide to anyone wishing to get an idea of the speeds being put up around the course. It will be observed that in the table intervals of five seconds have been taken, this interval representing a difference in speed of just over two miles an hour at the upper end of the scale, and approximately half-a-mile an hour in the case of the lowest speeds included. Intermediate speeds can readily be estimated with a fair degree of accuracy.

Table showing lap times and speeds for the Hampshire 11 miles' course.

Lap Time.	Speed.	Lap Time.	Speed.	Lap Time.	Speed.	Lap Time.	Speed.	Lap Time.	Speed.	Lap Time.	Speed.
m. s.	m.p.h.	m. s.	m.p.h.	m. s.	m.p.h.	m. s.	m.p.h.	m. s.	m.p.h.	m. s.	m.p.h.
5 0	132.0	6 0	110.0	7 0	94.3	8 0	82.5	9 0	73.4	10 0	66.0
5 5	129.8	6 5	108.4	7 5	93.2	8 5	81.6	9 5	72.7	10 5	65.5
5 10	127.7	6 10	107.0	7 10	92.2	8 10	80.8	9 10	72.0	10 10	64.9
5 15	125.6	6 15	105.6	7 15	91.1	8 15	80.0	9 15	71.4	10 15	64.4
5 20	123.8	6 20	104.2	7 20	90.0	8 20	79.2	9 20	70.7	10 20	63.8
5 25	121.8	6 25	102.9	7 25	89.0	8 25	78.4	9 25	70.1	10 25	63.3
5 30	120.0	6 30	101.5	7 30	88.0	8 30	77.6	9 30	69.5	10 30	62.8
5 35	118.2	6 35	100.2	7 35	87.1	8 35	76.9	9 35	68.9	10 35	62.4
5 40	116.5	6 40	99.0	7 40	86.2	8 40	76.2	9 40	68.3	10 40	61.9
5 45	114.8	6 45	97.8	7 45	85.2	8 45	75.5	9 45	67.7	10 45	61.3
5 50	113.1	6 50	96.6	7 50	84.3	8 50	74.8	9 50	67.2	10 50	61.0
5 55	111.5	6 55	95.5	7 55	83.4	8 55	74.0	9 55	66.6	10 55	60.4



HAMPSHIRE AIR PAGEANT: PROGRAMME OF EVENTS

Event 1 (2.30 p.m.): Grand Fly-Past of Aircraft.—The machines will taxi past and take off in the order given, in ascending order of weight, which varies from 6 cwt. to 10 tons.

1) De Havilland 53 (Blackburne "Tomtit" or Bristol "Cherub"). (2) Hawker "Cygnet" (Bristol "Cherub"). (3) Bristol "Brownie" (Bristol "Cherub"). (4) "A.N.E.C. 2" (Bristol "Cherub"). (5) "Halton I" (Bristol "Cherub"). (6) De Havilland "Moth" (A.D.C. "Cirrus"). (7) Avro "Avian" (A.D.C. "Cirrus II"). (8) Westland "Widgeon" (A.D.C. "Cirrus II"). (9) Blackburn "Bluebird" (Siddeley "Genet"). (10) Sopwith "Grasshopper" (100 Anzani). (11) Boulton and Paul "P. 9" (90 R.A.F.). (12) Avro "Lynx Tourer" (Siddeley "Lynx"). (13) S.E. 5A (Wolseley "Viper"). (14) Nieuport "Nighthawk" (Bristol "Jupiter"). (15) "Nimbus" (Martinsyde (A.D.C. "Nimbus"). (16) Gloster "Gamecock" (Bristol "Jupiter"). (17) Supermarine "Sheldrake Amphibian" (Napier "Lion"). (18) Hawker "Horsley" (Rolls-Royce "Condor"). (19) Handley Page "Hampstead" (3-Bristol "Jupiters"). (20) Avro "Ava" (Rolls-Royce "Condor"). (21) Fairey "III. D" (Float Seaplane (Napier "Lion"). This latter machine will take off from Southampton Water and join in the Fly-Past.

Event 2 (2.55 p.m.): Wakefield Light Aeroplane Handicap.—Open to any Light Aeroplane with an engine whose total piston displacement does not exceed 5,000. First Prize, The Sir Charles Wakefield Challenge Cup (and replica), presented by Sir Charles Wakefield, Bart., C.M.G., and £50. Second Prize, £20. Third Prize, £10. Course: Two laps of Course "A" —22 miles.

Mark.	Entrant.	Machine and Engine.	Colours.	Pilot.
G-EBJH	R.A.E. Aero Club	Hawker "Cygnet," Bristol "Cherub III"	Yellow ..	Flying-Officer R. L. Ragg.
G-EBJK	Bristol Aeroplane Co., Ltd.	Bristol "Brownie," Bristol "Cherub III"	Silver ..	C. F. Uwins.
G-EBJM	London Aeroplane Club	Bristol "Brownie," Bristol "Cherub III"	Silver ..	L. J. C. Mitchell.
G-EBJO	N. H. Jones	"A.N.E.C. II," Bristol "Cherub III"	Brown and Blue ..	N. H. Jones.
G-EBKD	Robert Blackburn	Blackburn "Bluebird," 60 h.p. Armstrong-Siddeley "Genet"	Light Blue and Silver	Sqn.-Ldr. W. H. Longton, D.F.C., A.F.C.
G-EBLW	Midland Aero Club	D.H. "Moth," "Cirrus Mark I"	Silver and Green ..	W. J. McDonough.
G-EBMF	London Aeroplane Club	D.H. "Moth," "Cirrus Mark I"	Brown and Silver ..	A. R. Ogston.
G-EBOH	Hampshire Aeroplane Club	D.H. "Moth," "Cirrus Mark I"	Light and Dark Blue and Silver.	L. F. Ash.
G-EBOI	Hampshire Aeroplane Club	D.H. "Moth," "Cirrus Mark II"	Light and Dark Blue and Silver	Flight-Lieut. G. I. Thomson.
G-EBOO	Halton Aero Club	"Halton I," Bristol "Cherub III"	Aluminium ..	Flight-Lieut. Le Poer Trench.
G-EBOU	De Havilland Aircraft Co.	D.H. "Moth," 60 h.p. Armstrong-Siddeley "Genet"	Red and Silver ..	Flight-Lieut. D'Arcy Greig.
G-EBOV	Bert Hinkler	Avro "Avian," "Cirrus Mark II"	Silver ..	Bert Hinkler.
G-EBPG	De Havilland Aircraft Co.	D.H. "Moth," "Cirrus Mark II"	Dark Blue and Silver	Capt. A. G. Lamplugh.
G-EBPU	Hon. Lady Bailey	D.H. "Moth," "Cirrus Mark II"	Silver ..	Hon. Lady Bailey.
G-EBPW	Robert A. Bruce	Westland "Widgeon III," "Cirrus Mark II"	Green and Silver ..	Maj. L. P. Openshaw.
G-EBQH	Capt. G. de Havilland	D.H. "Moth," "X" "Cirrus Mark II"	Silver and Blue ..	Capt. H. S. Broad.
G-EBQL	A. V. Roe and Co., Ltd.	Avro "Avian," "Cirrus Mark II"	Blue and Silver ..	Wing-Comdr. W. S. Douglas, M.C., D.F.C.
G-EBQN	R.A.E. Aero Club	Avro "Avian," "Cirrus Mark II"	Silver ..	Flight-Lieut. J. A. Gray.
G-EBQP	R.A.E. Aero Club	"D.H. 53," Bristol "Cherub III"	Silver ..	Flight-Lieut. Long.
G-EBQV	Newcastle Aero Club	D.H. "Moth," "Cirrus Mark II"	Red and Silver ..	J. D. Parkinson.
G-EBRA	Richard P. Cooper	"D.H. 53," Blackburne "Tomtit"	Green and Silver ..	—
G-EBRC	A.V. Roe and Co., Ltd.	Avro "Avian," "Cirrus Mark II"	Silver ..	—
G-EBJT	Col. the Master of Sempill	Westland "Widgeon II," Siddeley "Genet"	Green and Silver ..	Col. the Master of Sempill.

Event 3 (3.30 p.m.): Exhibition of Evolutions.—By three twin-engined Supermarine "Southampton" Flying-boats from R.A.F. Base, Calshot, under the command of Squadron-Leader I. T. Lloyd:

No. 1. Squadron-Leader I. T. Lloyd, 1st pilot; Flight-Lieut. E. L. Macleod, R.C.A.F., 2nd pilot; Pilot-Sergeant R. L. Mills; Leading-Aircraftsman, S. Waldron.

No. 2. Flight-Lieut. G. B. Holmes, 1st pilot; Flying-Officer N. C. Ogilvie-Forbes, 2nd pilot; Pilot-Sergeant R. MacGlashon; Aircraftsman, A. Wright.

No. 3. Flight-Lieut. G. R. Hicks, 1st pilot; Flying-Officer J. F. Young, 2nd pilot; Pilot-Sergeant S. A. C. Baker; Corporal A. W. Brown.

The leading machine will carry streamers on the struts. During the manœuvres the flying-boats will be met by a flight of single-seater fighter "Gamecocks," from No. 43 Squadron. This will emphasise the difference between the relative performance of the fighting scout and the bomber-reconnaissance flying-boat.

Formation of Five Gamecocks.—Squadron-Leader A. F. Brooke; Pilot-Sergeant E. P. H. Wells, D.F.M.; Flying-Officer (Lieut.) R. N. C. W. Byas; Flight-Lieut. A. C. Collier; Flight-Lieut. C. R. Smythe.

The Squadron markings of the "Gamecocks" are black and white checks on both sides of the fuselage and on the top planes, and the leading machine will carry streamers on the struts.

Event 4 (3.35 p.m.): Light Aeroplane Utility Race.—Entries limited to one Light Aeroplane from each of the six subsidised clubs. Open to any pilot and passenger, both being members of the club making the entry. First Prize, The "Flight" Cup (Presented by the Editor of FLIGHT). "Stormograph" (Presented by Short & Mason, Ltd.). Second Prize, Time-of-trip Clock (Presented by S. Smith & Sons (M.A.), Ltd.). Each competitor, with the aid of his passenger, will wheel his machine out of its shed, unfold it, start up the engine, fly round course "C," and rehouse the machine.

G-EBLW	Midland Aero Club	D.H. "Moth," "Cirrus Mark I"	Silver and Green ..	W. J. McDonough.
G-EBQH	London Aeroplane Club	D.H. "Moth," "Cirrus Mark II"	Silver and Blue ..	Capt. F. G. M. Sparks.
G-EBOI	Hampshire Aeroplane Club	D.H. "Moth," "Cirrus Mark II"	Light and Dark Blue and Silver	Flight-Lieut. G. I. Thomson.
G-EBQV	Newcastle Aero Club	D.H. "Moth," "Cirrus Mark II"	Red and Silver ..	J. D. Parkinson.

Event 5 (3.50 p.m.): "Pageant of Travel" Relay Race.—This event will be a demonstration of various modes of travel, illustrating in the form of a relay race, the acceleration of transport from 4,000 B.C. to A.D. 1927. Three teams will compete, viz., the "Red," the "White," and the "Blue." The race will be divided into five stages, and the competitors will consecutively consist of pedestrians, horsemen, cyclists, motorists, and air-pilots.

PEDESTRIANS	HORSEMEN	CYCLISTS	MOTORISTS	AIR PILOTS	Red Team.	White Team.	Blue Team.
					Cave-Man	Dick Whittington	Roman Cavalier
					Farmer	Highwaymen	—
					Three Gentlemen of Leisure (Mid-Victorian)		
(Bicycles kindly loaned by Humber, Ltd.)					M. Bruler	M. Route-cochon	M. Salut D'Abord
(Morris "Oxford" Cars kindly loaned by Wadham Bros.)					Mr. McIcarus	M. Baton-de-joie	Mr. F. U. Selage

Event 6 (4.10 p.m.): President's Cup Race.—A Handicap Race open to any aircraft, having an engine or engines aggregating not more than 100 h.p., piloted by a member of any British Aero Club. First Prize, the President's Challenge Cup (with replica) presented by the Rt. Hon. Lord Louis Mountbatten, K.C.V.O., R.N., and £50. Second Prize, £20. Third Prize, £15. Course:—Three laps of Course "A," i.e., 33 miles.

G-EBIN	D. A. N. Watt	Sopwith "Grasshopper" "Anzani" 100 h.p.	Khaki ..	D. A. N. Watt.
G-EBWS	Capt. J. Dawson Paul	Boulton & Paul P.9 R.A.F. 1A	Aluminium ..	Sqn.-Ldr. C. A. Rea.
G-EBJH	R.A.E. Aero Club	Hawker "Cygnet" Bristol "Cherub III"	Yellow ..	Flying-Officer R. L. Ragg.
G-EBJK	Bristol Aeroplane Co., Ltd.	Bristol "Brownie" Bristol "Cherub III"	Silver ..	C. F. Uwins.
G-EBJM	London Aeroplane Club	Bristol "Brownie," Bristol "Cherub III"	Silver ..	G. H. Craig.
G-EBJO	N. H. Jones	"A.N.E.C. II" Bristol "Cherub III"	Brown and Blue ..	N. H. Jones.
G-EBJD	Robert Blackburn	Blackburn "Bluebird," 60 h.p. Armstrong Siddeley "Genet"	Light Blue and Silver	Sqn.-Ldr. W. H. Longton, D.F.C., A.F.C.

No.	Mark.	Entrant.	Machine and Engine.	Colours.	Pilot.
G-EBLW	Midland Aero Club	..	D.H. "Moth," "Cirrus Mark I" ..	Silver and Green ..	W. J. McDonough.
G-EBMF	London Aeroplane Club	..	D.H. "Moth," "Cirrus Mark I" ..	Brown and Silver ..	Capt. F. G. M. Sparks.
G-EBOH	Hampshire Aeroplane Club	..	D.H. "Moth," "Cirrus Mark I" ..	Light and Dark Blue and Silver ..	Lieut. Kimmings, R.N.
G-EBOI	Hampshire Aeroplane Club	..	D.H. "Moth," "Cirrus Mark II" ..	Light and Dark Blue and Silver ..	Flight-Lieut. G. I. Thomson.
G-EBOO	Halton Aero Club	..	"Halton I" Bristol "Cherub III" ..	Aluminum ..	Flight-Lieut. le Poer Trench.
G-EBOV	Bert Hinkler	..	Avro "Avian," "Cirrus Mark II" ..	Silver ..	Bert Hinkler.
G-EBPG	De Havilland Aircraft Co.	..	D.H. "Moth," "Cirrus Mark II" ..	Dark Blue and Silver ..	Capt. A. G. Lamplugh.
G-EBPU	Hon. Lady Bailey	..	D.H. "Moth," "Cirrus Mark II" ..	Silver ..	Hon. Lady Bailey.
G-EBPW	Robert A. Bruce	..	Westland "Widgeon III," "Cirrus Mark II" ..	Green and Silver ..	Major L. P. Openshaw.
G-EBQH	Capt. G. De Havilland	..	D.H. "Moth X," "Cirrus Mark II" ..	Silver and Blue ..	Capt. H. S. Broad, A.F.C.
G-EBQL	A. V. Roe & Co., Ltd.	..	Avro "Avian," "Cirrus Mark II" ..	Blue and Silver ..	Wing Comdr. W. S. Douglas, M.C., D.F.C.
G-EBQN	R.A.E. Aero Club	..	Avro "Avian," "Cirrus Mark II" ..	Silver ..	Flight-Lieut. J. A. Gray.
G-EBQP	R.A.E. Aero Club	..	D.H. 53, "Bristol Cherub III" ..	Silver ..	Flight-Lieut Long.
G-EBQV	Newcastle Aero Club	..	D.H. "Moth," "Cirrus Mark II" ..	Red and Silver ..	J. D. Parkinson.
G-EBRA	Richard P. Cooper	..	D.H. 53, "Blackburne Tomtit" ..	Green and Silver ..	—
G-EBRC	A. V. Roe & Co., Ltd.	..	Avro "Avian," "Cirrus Mark II" ..	Silver ..	—
G-EBJT	Col. The Master of Sempill	..	Westland "Widgeon II," "Siddeley Genet" ..	Green and Silver ..	Col. The Master of Sempill.

Event 7 (4.45 p.m.) : Stunting in Formation.—By a Flight of Single-Seater Gloster "Gamecocks" from No. 43 Squadron, R.A.F., Tangmere. Flight-Lieut. C. R. Smythe (Leader). Flying-Officer (Lieutenant R.N.) C. W. Byas. Sergeant-Pilot E. P. H. Wells, D.F.M.

The "Gamecock" is a high-performance single-seater fighter, designed for high altitude work and best climb. The engine is a Bristol "Jupiter," 490 h.p., working at 1,870 r.p.m. The total weight of the aeroplane is 2,800 lbs., and its top-speed at sea-level, 152 m.p.h.

Event 8 (5.0 p.m.) : Parachute Descent by Surrey Flying Services, Croydon Aerodrome. Pilot, Mr. E. F. Smith. Machine, Avro 504. Parachutist, Mrs. Priest. Parachute, Calthrop "Guardian Angel."

Event 9 (5.15 p.m.) : Grand Relay Race.—Three "Southamptons," Red, White and Green, will take off from Southampton Water, race round a course, and then cross the finishing line on the aerodrome. As each boat passes the judges, a rocket of appropriate colour will be fired which will release a corresponding single-seater "Gamecock." The "Gamecocks" will race one lap of Course "A," and as they cross the finishing line, rockets will be fired again to release Light Aeroplanes. The Light Aeroplanes will race one lap of Course "C," and a rocket denoting the colour of the winning team will be fired as the winning Light Aeroplane crosses the line.

Event 10 (5.30 p.m.) : Eccentric Flying, by Flight-Lieut. H. C. Calvey, R.A.F., on a Gloster "Gamecock" single-seater fighter with Bristol "Jupiter" engine. The machine has red and blue squares on the fuselage and top plane. The event will culminate in an inverted "falling leaf."

Event 11 (5.40 p.m.) : Morris Open Handicap.—Open to all comers. First Prize, the Morris Challenge Cup (with replica), presented by W. R. Morris, Esq., and £100. Second Prize, £30. Third Prize, £15. Course: One lap of Course "B," followed by one lap of Course "A," i.e., 30 miles.

Mark	Entrant	Machine and Engine	Colours	Pilot
G-EAWS	Capt. J. Dawson Paul	Boulton & Paul P. 9, R.A.F. "1A"	Aluminium ..	Sqn.-Ldr. C. A. Rea.
G-EBDO	A. S. Butler	D.H. "37" A.D.C. "Nimbus"	Silver & Dark Red ..	A. S. Butler.
G-EBJH	R.A.E. Aero Club	Hawker "Cygnet," Bristol "Cherub III" ..	Yellow ..	Flying-Officer R. L. Ragg.
G-EBJK	Bristol Aeroplane Co., Ltd.	Bristol "Brownie," Bristol "Cherub III" ..	Silver ..	C. F. Uwins.
G-EBJM	London Aeroplane Club	Bristol "Brownie," Bristol "Cherub III" ..	Silver ..	Capt. H. Spooner.
G-EBJO	N. H. Jones	"A.N.E.C. II," Bristol "Cherub III" ..	Brown and Blue ..	N. H. Jones.
G-EBKD	Robert Blackburn	Blackburn "Bluebird" 60 h.p. Armstrong-Siddeley "Genet" ..	Light Blue and Silver ..	Sqn.-Ldr. W. H. Longton, D.F.C., A.F.C.
G-EBKQ	A. V. Roe & Co., Ltd.	Avro "Lynx," Tourer "Lynx IV" ..	Silver ..	Flight-Lieut. H. A. Hamersley.
G-EBLW	Midland Aero Club	D.H. "Moth," "Cirrus Mark I" ..	Silver and Green ..	W. J. McDonough.
G-EBMF	London Aeroplane Club	D.H. "Moth," "Cirrus Mark I" ..	Brown and Silver ..	Major K. M. Beaumont.
G-EBOG	D. A. N. Watt	"S.E. 5A," Wolseley "Viper" ..	Khaki ..	D. A. N. Watt.
G-EBOH	Hampshire Aeroplane Club	D.H. "Moth," "Cirrus Mark I" ..	Light and Dark Blue and Silver ..	Lieut. Crawford.
G-EBOI	Hampshire Aeroplane Club	D.H. "Moth," "Cirrus Mark II" ..	Light and Dark Blue and Silver ..	Flight-Lieut. G. I. Thomson.
G-EBOJ	Lieut.-Col. M. Ormonde Darby	"Nimbus" Martinsyde ..	Aluminium ..	H. H. Perry.
G-EBOO	Halton Aero Club	"Halton I," Bristol "Cherub III" ..	Aluminium ..	Flight-Lieut. le Poer Trench.
G-EBOU	De Havilland Aircraft Co.	D.H. "Moth," 60 h.p. Armstrong-Siddeley "Genet" ..	Red and Silver ..	Flight-Lieut. D'Arcy Greig.
G-EBOV	Bert Hinkler	Avro "Avian," "Cirrus Mark II" ..	Silver ..	Bert Hinkler.
G-EBPA	Mrs. S. C. Elliott-Lynn	"S.E. 5A," Wolseley "Viper" ..	Silver ..	Mrs. S. C. Elliott-Lynn.
G-EBPG	De Havilland Aircraft Co.	D.H. "Moth," "Cirrus Mark II" ..	Dark Blue and Silver ..	Capt. A. G. Lamplugh.
G-EPBU	Hon. Lady Bailey	D.H. "Moth," "Cirrus Mark II" ..	Silver ..	Hon. Lady Bailey.
G-EBPW	Robert A. Bruce	Westland "Widgeon III," "Cirrus Mark II" ..	Green and Silver ..	L. P. Openshaw.
G-EBQH	Capt. G. de Havilland	D.H. "Moth X," "Cirrus Mark II" ..	Silver and Blue ..	Capt. H. S. Broad, A.F.C.
G-EBQL	A. V. Roe & Co., Ltd.	Avro "Avian," "Cirrus Mark II" ..	Blue and Silver ..	Wing-Comdr. W. S. Douglas, M.C., D.F.C.
G-EBQM	Flying-Officer A. H. Wheeler	"S.E. 5A," Wolseley "Viper" ..	Silver ..	Flying-Officer A. H. Wheeler.
G-EBQN	R.A.E. Aero Club	Avro "Avian," "Cirrus Mark II" ..	Silver ..	Flight-Lieut. J. A. Gray.
G-EBQP	R.A.E. Aero Club	D.H. 53, "Bristol Cherub III" ..	Silver Green and Silver ..	Flight-Lieut. Long.
G-EBQV	Newcastle Aero Club	D.H. "Moth," "Cirrus Mark II" ..	Red and Silver ..	J. D. Parkinson.
G-EBRA	Richard P. Cooper	D.H. 53, "Blackburne Tomtit" ..	Green and Silver ..	—
G-EBRC	A. V. Roe & Co., Ltd.	Avro "Avian," "Cirrus Mark II" ..	Silver ..	—
G-EBJT	Col. The Master of Sempill	Westland "Widgeon II," "Siddeley Genet" ..	Green and Silver ..	Col. The Master of Sempill.

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Sunday Flying

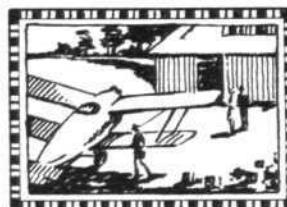
In connection with the Hampshire Air Pageant being held on a Sunday, Mr. O. E. Simmonds, Chairman of the Pageant Committee of the Hampshire Aeroplane Club, has made the following reply to the joint letter of protest sent by the Bishop of Winchester (Dr. Woods) and the President of the Hants Free Church Federation (the Rev. H. T. Spencer) regarding this question. He states that the pageant has been specially arranged at an hour that will not interfere with morning or evening service. There is one church in the vicinity which holds an afternoon service, but it would appear possible so to arrange the services that, on that Sunday, the service might be held in the church in the

evening. The object of the Hampshire Aeroplane Club, he adds, is not commercial, but is to familiarise the general public with flying, and to create an air-minded nation. "The pageant is our great appeal to democracy, and Sunday is the only day when the appeal can be practically universal. Wednesday is possible for one section, Saturday for another, but Sunday for all."

The Addams Cup Competition

IN connection with our report in last week's issue of the 41 Fighter Squadron competition for the Addams Cup, we have been asked to correct an inaccuracy in the placing of the competitors. Actually first place was secured by (B) Flight, second place by (A) Flight, and third by (C) Flight.

PRIVATE



FLYING

A Section of **FLIGHT** in the Interests of the Private Owner, Owner-Pilot, and Club Member

TO INDIA IN A "MOTH"

A PAPER on the now famous light-aeroplane flight to India was read by Capt. T. Neville Stack at the Royal Society of Arts, on May 4, 1927, with Col. The Master of Sempill in the chair, before a fairly large gathering, which included Air Vice-Marshal Sir Sefton Brancker, who has recently returned from his extensive air tour. The "Moths" used by Capt. Stack and his companion, Mr. B. S. Leete, were standard types, only modified with the addition of an extra petrol tank in each in place of a passenger. The petrol carried was sufficient for eight hours flight or a journey of 550 miles cruising at a ground speed of 70 m.p.h., which left a very safe margin as the longest stage non-stop was 450 miles. Personal kit and spares were reduced to a minimum. The start from Stag Lane was made on November 16, and the necessary landing to clear Customs at Lympne was made the same day, a short flight that was rather uncomfortable owing to bad visibility, rain and a strong wind, which increased so much that on landing the machines would have been blown over but for the promptitude of Commander Deacon's ground staff who managed to grasp the wing tips. Eventually the bad weather caused a delay of 3½ days, during which period a discovery was made of foreign matter in the petrol tank of Capt. Stack's machine, which necessitated taking down and cleaning out the whole petrol and induction system. After this early experience a little petrol was let out of the drain cocks every day to clear any residue that may have collected. On the 20th the Channel crossing was made and St. Inglevert Aerodrome circled that they could be observed and their safe crossing reported to Lympne, for no wireless was carried by themselves, and then the course lay S.S.E., passing Boulogne on their right, then over Montreuil and the Forêt de Crecy, Abbeville and Poix, where a Farman Goliath of the French Airways was overtaken.

At Beauvais low clouds and rain were met with and then Le Bourget, Paris, was reached, where Custom formalities were gone through and they made an inspection of their machines and filled up. Here they were detained by gales and rain, and they lived at the Rest House on the aerodrome, which was very comfortable and convenient. On the 21st the weather was so bad as to prevent Imperial Airways from flying, but the "Moths" got away after noon on the 22nd, as the conditions gradually improved and a weather report was favourable for their next stage south, but actually the reverse happened, owing to some unforeseen break in the weather, and they really experienced some of the worst elements of the whole flight. It obliged them to make a night landing at Bron Aerodrome, Lyons, without lights or flares to guide them, the lighting system having failed in a gale of the previous day. On the 24th they flew down the Rhone Valley to Marseilles and saw beautiful scenery rather spoilt by floods which left scarcely a field in view fit to land on, but the known landing grounds, St. Rambert, d'Albon, Moullemar, Orange and Avignon were not flooded and the way lay over or close to all of these. The weather was delightful, and after 2 hrs. 40 mins. flying the aerodrome of Marignane, Marseilles, was reached, where the engines were very carefully inspected as the next day they would pass over mountainous country and sea. This was the 25th, and they left for Pisa, striking a course across the mountains from Marignane to St. Raphael, where the sea was struck again and they flew round the coast passing Nice, Monaco, Mentone, Genoa, etc.

It was very mountainous with only three landing grounds in about 200 miles, with the exception of narrow foreshore in places that might possibly have afforded a landing but with certain damage to the machines. After four hours' flying Pisa was reached and the aerodrome was found to be flooded save for a small strip seven to eight yards wide and about 100 yards long, on which they landed and taxied through water and mud to the hangars. The Commandante of the aerodrome took them to the hotel, and all the time they spent in Italy

every courtesy and assistance was received from the Italian Air Force. They took off the next morning, 26th, in a shower of mud and spray with a fairly strong wind blowing and reached Rome, where a day and half was spent in sightseeing, and then went on to Capua near Naples, choosing this place instead of Naples on the kind advice of the Italians, as it was a better and larger ground. They were hospitably entertained by the Italians for three whole days, bad weather delaying their trip. On continuing they flew over the edge of Mount Vesuvius which was actively belching forth smoke and occasional red flames, passed down the coast and then crossed the sea to Sicily and eventually reached Catania where a landing was made for fuel and lunch. The Italian Air Force tried to persuade them to stay the night but they left after a prolonged lunch as the fine day made them naturally anxious to take advantage of it, and so they pushed on to Malta, landing half-an-hour before dark. An enforced stay of a week through weather again was most happily spent through the extreme kindness of His Excellency the Governor and Lady Congreve, Sir Roger Keys and Lady Keys. The R.A.F. took over their machines and thoroughly tuned them up for the Mediterranean crossing, which was made on December 8, Flight-Lieut. Newton escorting them for eighty miles in a Fairey seaplane. Visibility became very bad on this long sea journey and no ships were sighted at all, so that on account of this the North African Coast was not seen until within five or six miles of it. The landing was made about a mile west of their objective—Khoms. The next stage was a six-hour journey under unfavourable conditions to Benghazi on December 9, then on to Porto Bardia on the 11th, Cairo on the 12th, and then Baghdad in three stages on account of strong contrary winds, a night being spent with the R.A.F. at Aman, who had kindly invited them. Trouble with a defective magneto on Mr. Leete's machine caused delay next, but he carried on with one functioning, and after 5½ hours they reached Rutbah Wells. When at Baghdad they taxied to their respective squadrons, 70 and 55, of which they had been members three years previously, and were heartily welcomed. The depot executed fine skill in cutting and driving a sprocket in Mr. Leete's magneto, which carried him through the remainder of the long flight.

At Bardar Dilan Mr. Leete had trouble with oily plugs and made a fine descent. At Bushire a top overhaul of both engines was made in six days and a cracked cylinder head was more or less sealed with hermatite. They were overtaken by Sir Samuel Hoare in the De Havilland "Hercules," and a pleasant meeting followed. Bandar Abbas was the next stage, then Yask, nearly 180 miles, and altogether they flew over 600 miles in 6½ flying hours. Reaching Charbar on the 6th, only 450 miles now remained ahead to complete what they had set out to do, and after an exciting last lap which including running into a dust storm which extended from the ground to 5,000 ft. for at least 150 miles they reached Karachi, having received extreme kindness and assistance all along the route from England.

In the discussion that followed Capt. Stack's paper, Sir Sefton Brancker congratulated him and his companion on their fine sporting action and expressed the hope that other young sportsmen would follow their example. As the Director of Civil Aviation, too, he officially thanked them for what they had done for civil flying.

Other speakers rose and expressed their appreciation of the sporting endeavour and they included Maj. Openshaw, Maj. Stewart, of the A.D.C., Mr. C. G. Grey, Mr. Loader, Mr. Manning, Mr. D. Kittle and Maj. Turner. A few questions were also asked and in reply Capt. Stack said that they had met no difficulties in taking off in the different climates that any pilot could not have overcome and very little trueing up of the machine was necessary. A spare propeller was carried and he had to take advantage of this

as his other became $\frac{1}{2}$ in. out of true, but Mr. Leete made the whole flight with the same propeller. The cost of such a trip, he said, in reply to Sir Sefton Brancker, was about equal to that with a car of the same horse-power. With regard to Maj. Openshaw's question on the fuel supplies, he said that a similar flight could be made at any time with no previous arrangements for supplies as they could be obtained all the way. Despite many landings on bad ground he had not

to pump his tyres once during the four months, and Mr. Leete had just one puncture. The tyres were Palmer Cords, fitted to Palmer landing wheels.

In conclusion, the chairman, Col. The Master of Sempill, made a very interesting suggestion when he said that information of suitable landing grounds in this country should, if possible, be gathered together and published for the benefit of private flying.



U.S.A. FOLLOWS OUR LIGHT 'PLANE MOVEMENT

IT is only recently that our friends of the New World have definitely interested themselves in a practical way in the light 'plane clubs. It is through their universities and colleges that this is being demonstrated at present, so that the ordinary man has not the opportunity of learning to fly as he has here. There are no subsidised clubs, one reason for that being, perhaps, because of the existence of so many commercial schools which flourish and teach a pupil for the comparatively cheap sum of something like £40. So that if there is no public movement like ours, the facilities for achieving the same end are there, none the less.

Harvard University has led the way recently with actual flying, having obtained a machine through the generous loan of 2,000 dollars from one of its undergraduates, Fred Lothrop Ames, who is already an enthusiastic owner-pilot, who has taken the note of the incorporated club as security. The Harvard Flying Club was organised three years ago by an undergraduate, Rodney Jackson, who had taken a flying course at the U.S.N. reserve school at Squantum, and of the 25 original members nine are still connected with it, the total being made up with new members. Ten are graduate pilots of the Squantum or Hampton Roads schools, or passed through commercial courses at Boston. At present nobody is taught to fly from the *ab initio* stage on the Club's machine, only those who are already pilots being allowed to fly it. The intending pupils go through the commercial school at Boston. By initiation fees of 10 dollars, annual fees of 100 dollars, and a charge per hour flown the Club keeps solvent. As far as

possible repairs are managed by the members and by this method of economy it is hoped to repay the 2,000 dollars and acquire additional equipment as well as meet current expenses. They use a reconditioned "Travel Air" machine, fitted with an OX-5 engine.

Another club is the Waterbury Light 'Plane Club which operates from the commercial airport of Bethany and was formed by undergraduates from the Massachusetts Institute of Technology. An initiation fee of 100, and an annual fee of 10 dollars, with flying instruction fees of 6 dollars per hour are the charges. They own a "JN" and have 22 members, with nine of them qualified as pilots. The Institution of Technology itself has long been interested in aeronautics, its glider and light 'plane designs being well known, so that logically it should have been first to possess a machine, but they have lacked a rich sponsor like Harvard's.

Yale has also entered the light 'plane field. During the winter a ground course has been given and some of the members have flown from Bethany. Like all other clubs it will buy a machine as soon as funds are raised. Other college flying clubs are expected to start at New York, Michigan, California, Leland Standford and others. An American contemporary comments with pleasure on this survival of the college-trained pilot, as air pilots in these days were beginning to be regarded as a superior type of chauffeur. During the war, the American pilot, as a rule, had to have had a college education, although there were brilliant exceptions like Frank Luke, Raoul Lufbery, and Eddie Rickenbacker.



An Association of Clubs

THE Royal Aero Club invited the light aeroplane clubs to a meeting in London on April 27, and it was accepted by the London, Hampshire, Lancashire, Midland, Norwich, and Suffolk clubs, whilst the Newcastle and Yorkshire clubs, although unable to attend, expressed their agreement with the object of the discussion—a scheme of association with the Royal Aero Club providing for the formation of a general council on which all clubs would be represented. The Inter-Club race for the Air League Challenge Cup was chosen for July 9, 1927, at Castle Bromwich, Birmingham, and it will consist of one circuit of the following course—Castle Bromwich-Sherburn-Woodford-Castle Bromwich, with compulsory stops of 30 minutes at Sherburn and Woodford. The race will be handicapped. Other details were left to a committee which will comprise a representative from each associated club. As the race this year will start and finish at the Midland Club's aerodrome, their secretary, Maj. Gilbert Dennison, will undertake the organisation.

A Sociable Idea

OUR moorland club is proposing to add to its attractions at Sherburn by making flying a sociable affair. They are seeking to lay tennis courts and a putting green, and have a social lounge where the less strenuous moments in life may be passed pleasantly. For this excellent idea, that will inevitably attract more members, a subscription list is to be opened shortly, and the hope is expressed that it will be possible to accomplish before this year passes. Recent events proved the possibilities of the place for this purpose. The Yorkshire Club's chairman, Mr. Wayman, is very keen to see an air port scheme adopted, and it has been thought that the club might utilise an air port near Leeds as tenants in conjunction with a commercial scheme, but great difficulty has been met with in selecting a suitable site.

Ex-Private Owners

THERE are a few private owners who apparently no longer own a machine, and amongst these are Mr. R. L. Preston, who possessed a B.E.2e; Wing-Comdr. Wynne, a "Moth"; and Capt. F. E. Courtney, a BP P9.

An "Avian" on Tour

IN accordance with the plans already mentioned the "Avian" commenced its demonstrations last week amongst the schoolboys. Mr. M. A. Lacayo, a Manchester shipper, who was the first member of the Lancashire Light 'Plane Club to obtain his "ticket," borrowed the machine from the Avro Company, and at his own expense, he flew to the famous meadow of Rannymede and was enthusiastically received by 150 pupils of his old school, Beaumont College, Old Windsor. The boys gathered round the "Avian" that had been flown from Southampton and were eager to make a flight, but only the Headmaster, the Rev. A. Chichester, went up, flying over Staines. Mr. Lacayo then rose again after explaining the machine to his excited class, and looped and performed other evolutions. He then flew to Croydon with Mr. C. J. Wood, secretary of the Lancashire Aero Club, where, owing to a very rough patch of ground, the machine unfortunately tipped on its nose when landing, damaging the propeller and starboard bottom wing, but happily the occupants were not injured.

Following a Good Example

THERE is evidence of light 'plane activity in South Wales. At Bridgend a club has already been formed and now it is probable that others will arise at Penarth and Port Talbot. During Sir Alan Cobham's recent visit to Cardiff local enthusiasm was aroused and negotiations are pending.

The Wanderings of a "Moth"

THE Duchess of Bedford, who is making a tour in a "Moth" abroad, arrived at Tangier, on the North African coast, on May 1, 1927, having flown from Seville and passed over Gibraltar *en route*. During the course of her journey to Morocco the Duchess has remained at nights in Paris, Biarritz, Madrid and Seville, where her pilot, Capt. C. D. Barnard, gave a display of aerobatics at a fête in progress on their arrival, at which King Alfonso and the Prince of Wales were present. The pilot has reported to the de Havilland Company that the "Moth" crossed the three great mountain ranges of the Pyrenees, the Guadaramas and Sierra Nevada, without difficulty, and no adjustments to the machine have been necessary since leaving London.

LIGHT 'PLANE CLUBS

London Aeroplane Club

The total flying time for the month of April was 165 hrs. 55 mins., made up as follows:

	Flights	Hrs.	Mins.
Dual instruction	122	56	50
Solo flying	125	78	0
Passenger flights	53	21	15
Test flights	59	9	50
	359	165	55

The flying time for the week ending 8th inst. was 35 hrs. 25 mins. Owing to three machines being under repair all the week the flying was very much restricted.

Pilot Instructors:—Capt. F. G. M. Sparks, Capt. S. L. F. St. Barbe.

Dual Instruction:—Miss Spooner, A. S. Mulder, L. Daniels, R. P. Cooper, Lord Carlow, C. H. Swan, A. C. M. Jackaman, G. Black, C. H. Swan, Miss O'Brien, Miss Wilson, I. H. McClure, H. R. Presland, J. J. Hofer, E. A. Lingard, H. S. Greenland, F. C. Elford, H. M. Samuelson, H. O. Gugenheim, R. Drysdale Smith, J. A. Simson, A. S. Richardson, I. Rich, P. O. A. Davison, Capt. H. Spooner.

Solo:—E. L. D. Moore, A. C. Pearson, Miss O'Brien, Capt. H. Spooner, G. Merton, O. J. Tapper, E. T. Symmonds, Squad-Leader M. E. A. Wright, A. F. Wallace, G. Terrell.

Passenger Flights:—S. O'Hara, B. Merry, Miss Judge, Miss Berry, Mrs. McClure, A. J. Mulder, L. C. Davey, C. Potter, Miss Terrell, L. H. Whiteside, B. N. Whiteside, Miss Clode.

The Hampshire Air Pageant:—The following Pilots have been selected for the races on Sunday next, 15th inst.:—

The President's Cup Race:—D.H. "Moth" (Cirrus Mark I), G-EBMF, Capt. F. G. M. Sparks; Bristol "Brownie" (Cherub III), G-EBJM, G. H. Craig.

The Morris Open Handicap:—D.H. "Moth" (Cirrus Mark I), G-EBMF, Major K. M. Beaumont; Bristol "Brownie" (Cherub III), G-EBJM, Capt. H. Spooner.

The Wakefield Light Aeroplane Handicap:—D.H. "Moth" (Cirrus Mark I), G-EBMF, A. R. Ogston; Bristol "Brownie" (Cherub III), G-EBJM, L. J. C. Mitchell.

Light Aeroplane Utility Race:—D.H. "Moth," X (Cirrus Mark II), G-EBQH, Capt. F. G. M. Sparks, or O. J. Tapper.

Transport of Machines to Hamble:—Bristol "Brownie", G-EBJM, O. J. Tapper; D.H. "Moth," G-EBMF, Capt. F. G. M. Sparks and Capt. H. Spooner. Leaving Stag Lane 5 o'clock Saturday, May 14, 1927.

The Bristol and Wessex Aeroplane Club

REPORT for week ending May 7.—Total flying time, 7 mins., made up of one demonstration flip in the Westland "Widgeon" Mark III, at the Westland Aerodrome, Yeovil.

It is not improbable that our first Club type 'plane will be ordered next week, although it is not decided which of the competing makes is most deserving of the privilege. We also have hopes of providing a nest for a Bristol "Brownie" in the very near future.

Strenuous efforts to augment our finances are afoot, so that a general exodus of wealthy Bristolians is to be expected. Nevertheless, being optimists, we expect to meet with considerable success.

The Hampshire Aeroplane Club

REPORT for the week ending May 6th.—On Saturday, April 30, Captain Thomson collected our reconditioned GE-BOI from Stag Lane, and flew it back to Hamble. He brought with him McCracken, who had been in London for a week getting his "D" licence. As we still have the Avro Avian, we managed to push up our flying time for the week to the total of 26 hrs. 10 mins.—Instruction flying, 11 hrs. 40 mins.; solo flying, 11 hrs. 35 mins.; test flights, etc., 2 hrs. 15 mins.; joy rides, 40 mins.

The following members had instruction:—Miss Home, 25 mins.; Messrs.

Berney, 2 hrs. 45 mins.; Cox, 1 hr. 10 mins.; A. V. Roe, 1 hr. 5 mins.; Farmer, 1 hr.; H. R. Grosvenor, 45 mins.; Waite, 35 mins.; Parker, 25 mins.; Dickson, 25 mins.; Lieut. Kimmings, R.N., 25 mins.; Brewster, 20 mins.; Beagley, 20 mins.; Morley, 20 mins.; Dunnings, 15 mins.; Courtney, 15 mins.; Jayne, 15 mins.; Lacayo (who came down from Manchester to collect an Avian), 15 mins.; Sanders Clark, 10 mins.; Butterly, 15 mins.; F.O. Overbury, 5 mins.; Cooper, 5 mins., and Bound, 5 mins.

The soloists were E. Wyllie, 2 hrs. 35 mins.; Nicholson, 40 mins.; Captain Yeatman, 40 mins.; F.O. Overbury, 25 mins.; S. Fry, 25 mins.; Hon. H. R. Grosvenor, 25 mins.; Keeping, 20 mins.; Shepherd, 20 mins.; Sanders Clark, 15 mins.; Ash, 15 mins.; Lieut. Kimmings, R.N., 15 mins.; Bowen, 10 mins.; and Rumble, 10 mins.

To this latter list must be added Flight Lieut. Crawford's 4 hrs. 20 mins. when he flew the Avian to Castle Bromwich to represent the Hampshire Club at the Birmingham Rally.

The results of the draw to decide the names of the members who will fly GE-BOH at our Pageant are as follows:—In the Morris Open Handicap, Flight-Lieut. Crawford. In the President's Cup Race Lieut. Kimmings, R.N. In the Wakefield Light Aeroplane Handicap, Mr. Ash. Captain Thomson will fly GE-BOI in all the above events.

The Lancashire Aero Club

REPORT for week ending Saturday, May 7.—Total flying time, 42 hrs. 5 mins., made up as follows:—Dual with Mr. Brown: Messrs. Caldecott, 1 hr. 25 mins.; Cohen, 1 hr. 20 mins.; Leeming, 1 hr. 15 mins.; Ward, 1 hr. 10 mins.; Torres, 55 mins.; Musgrave, 50 mins.; Miss Baerlein, 45 mins.; Miss Emery, 40 mins.; Messrs. Collinson and Meades, 40 mins. each; Harper, 35 mins.; Hartley and Turner, 30 mins. each; Harber, Shiers and Ruddy, 25 mins. each; Keaves and Rowley, 20 mins. each; Chadwick, 15 mins.; Mills and Pattriceoux, 10 mins. each.

Dual with Mr. Scholes:—Messrs. Ruddy, 30 mins.; Fray, 25 mins.; Harber and F. Scholes, 15 mins. each.

Dual with Mr. Cantrill:—Messrs. Goodyear, 20 mins.; Keays, 10 mins.

Solo:—Messrs. Twemlow, 1 hr. 45 mins.; Abdalla, 1 hr. 40 mins.; Nelson, 1 hr. 40 mins.; Costa, 1 hr. 15 mins.; Slater, 1 hr.; Benson, 1 hr. 5 mins.; Gattrell and Forshaw, 45 mins. each; Chapman, 35 mins.; Wade, 30 mins.; Lacayo, 40 mins.; Dickinson, 30 mins.; Crabtree and Leeming, 20 mins. each; Fallon, 15 mins.; Goodfellow, 10 mins.

Joy-rides:—With Messrs. Brown, Cantrill, Scholes, Lacayo, Leeming and Costa: Mrs. Crawford, Mrs. Caldecott, Mrs. Hogarth, Mrs. Thorpe, Miss Rainsford, Miss Bolton, Miss Dodge, Miss Hilton, Miss Goodwin; Messrs. Caldecott, Murrell (photography), Briggs, Tey, Faulkner, Dodge, Fallon, Arney, Bayliss, Twemlow, F. Scholes, Torres.

Test flights:—1 hr. 5 mins.

Weather was bad in the middle of the week, but we got a good start on Sunday, the 1st, when the club record for a day was again raised, this time to 16 hrs. 25 mins.

During the week Messrs. Benson, Nelson and Slater all successfully accomplished their height tests. Messrs. Lacayo and Twemlow flew over for Birmingham's show and reported on their return that they had won a gold cup, which, however, we have not yet seen. As the cup was for the best-kept machine and was won by L.R., our oldest Moth, the ground staff deserve our hearty congratulations.

Although strictly speaking not included in the week, mention must be made of Mr. and Mrs. Stack's visit on the 8th. Although no special invitation was issued to the general public a crowd of nearly 5,000 people assembled to greet them, a striking tribute to the great enthusiasm aroused in Lancashire by the flight to India. Yorkshire very sportingly sent a machine over to Woodford, but unfortunately it had to return early and the pilots missed the hospitality we had prepared for them. After giving Mr. and Mrs. Stack a great reception the crowd dispersed, and so missed the most thrilling part of the afternoon's proceedings, when Mr. Dickinson, taking a dislike to a wire fence, landed on it and appeared on the aerodrome trailing clouds of disgrace, so to speak. Proceedings concluded at approximately 1 a.m.



THE MIDLAND CLUB "AT HOME": Two views taken on the occasion of a successful aerial "At Home," held last Sunday, at Castle Bromwich, showing some of the machines lined up for a handicap race for three cups presented by the Club Council.

Midland Aero Club, Ltd.

REPORT for week ending May 7.—The total flying time was 15 hrs. 32 mins. The following members were given dual instruction by Mr. McDonough:—

Messrs. E. P. Lane, F. Coxhill, R. Cazalet. The following made solo flights:—Messrs. H. J. Willis, E. J. Brighton, J. F. C. Brinton, A. M. Glover, E. R. King, W. Swann.

The following were given joy rides by Mr. McDonough:—Messrs. J. S. Austin, E. J. Brighton, R. Brinton, A. Ellison.

Passengers with Mr. Brighton:—Messrs. J. Brinton, S. Coxhill, R. Aspinall, W. Morris, N. Crane, S. H. Smith, Miss C. Ball.

Mr. G. V. Perry, a member in the club who learnt to fly here, has recently been gazetted a Pilot Officer in No. 605 (County of Warwick) Bombing Squadron, R.A.F.

The club will be represented at Hampshire Air Pageant with G-EBLW.

On Sunday, May 1, the club held an "At Home" day at Castle Bromwich, at which there was a large attendance of members and their friends. A considerable number of visitors were also present from the Women's Engineering Society, Coventry Branch of the Royal Aeronautical Society, and the Sutton Coldfield and North Birmingham Motor Cycle Club. Ideal weather prevailed and a very large body of the general public were present during the whole of the day.

The club were favoured with the presence of eight visiting aircraft, as follows:—Mr. Hubert Broad, D.H. Moth (E.B.N.O.); Flight-Lieut. Crawford, Avro Avian (E.B.Q.L.); Flight-Lieut. Openshaw, Westland Widgeon (E.B.P.W.); Mr. C. Uwins, Bristol Fighter (E.B.F.U.); Flight Officer Atcherley, D.H. Moth (E.B.O.U.); Mr. David Kittel, D.H. Moth (E.B.M.U.); Mr. Twemlow, D.H. Moth (E.B.L.R.); and Mr. Berline, Avro Lynx (E.B.H.T.).

The first event on the programme took place at 15.00 hours, and was an excellent exhibition of aerobatics by Mr. W. J. McDonough, of the club Moth E.B.L.W., followed by an amusing demonstration of a pupil's first solo. Mr. McDonough demonstrated in very convincing fashion the easy manner in which the Moth can be controlled.

Item No. 2 was a race for a cup presented by the Council, open to "A" pilots trained by the club. The competitors were Mr. E. J. Brighton (Moth LW), Mr. J. F. C. Brinton (Moth LT) and Mr. H. J. Willis (Austin Whippet PF). This was won by Mr. Brighton with Mr. Brinton a close second.

The next event was a handicap race for three cups presented by the Council, open to machines with engines not exceeding 100 h.p. The course was of 10 miles, with two laps. The entrants were Flight-Lieut. Openshaw (Widgeon), Mr. Twemlow (Moth), Mr. Broad (Moth), Mr. McDonough (Moth), Flight-Lieut. Atcherley (Moth), and Flight-Lieut. Crawford (Avian). Openshaw started scratch, giving McDonough and Twemlow 1 min. 17 secs. start. The handicapping, which was kindly arranged by Major Openshaw, with the assistance of Mr. St. Barbe, produced a most exciting race and close finish. After the first lap, McDonough was leading with Twemlow second and Atcherley third, but during the second lap Openshaw drew up to second place just before crossing the finishing line. The result was McDonough first, Openshaw second, and Twemlow third. Mr. Twemlow, who is a member of the Lancashire Club, flew a very good race indeed.

After this, Flight Officer Atcherley took off in the Genet Moth (OU) and gave a very fine display of aerobatics. His inverted flying and slow rolls were quite some of the prettiest flying that one has ever seen.

Tea was then served to some 350 visitors, and from 17.30 hours until dark the two club Moths, assisted by Mr. Berline on the Avro Lynx, were kept busy giving trial flights.

The thanks of the Club are due to the Auxiliary Force Air Station at Castle Bromwich for an exhibition of formation flying, and for the opportunity afforded to visitors of inspecting one of the new D.H.9A's at close quarters.

The Newcastle-upon-Tyne Aero Club

REPORT for week ending May 8.—Gales appear to have given way to more or less permanent fogs. Flying was just possible on two days during the week and Sunday proved almost ideal, with good visibility and a really warming temperature. There was a good turn up of members and the two Moths were fully booked all day.



THE HAMPSHIRE AIR PAGEANT: First Prize in the "Light Aeroplane Utility Race" is the Cup presented by the Editor of FLIGHT, shown in above photograph.

In addition to the Moths, a D.H.53, which has been purchased by four members from the Director of Contracts, was flown by the owners and Mr. Parkinson during the week. All are delighted with the machine, especially are they pleased with the ease with which it can be flown. It gets off well and maintains height with the engine well throttled down. It is confined at present to aerodrome flying, but has been a source of attraction whenever it has been out.

The total time flown on Moths during the week was 23 hrs. 10 mins., 11.30 on Q.V., and 11.40 on LN, both machines having been in the air whenever the weather allowed. 4 hrs. 45 mins. was flown on the 53, which makes the total of aerodrome flying 27.55. On Sunday, the 8th, the two Moths were in the air for 15 hrs. 49 mins. (machine hours, therefore being 7.59), and the 53 one hour.

The following members flew under instruction with Mr. Parkinson:—Mrs. Heslop, Mr. Miesegaes, Mr. Shaw, Mr. Thirlsell, Capt. Milburn, Mr. Pargeter, Mr. V. Heaton, Junr., Mr. A. E. George, Mr. J. Gibson. Miss Leathart received advanced instruction.

Solo flights were carried out by Mr. Bainbridge and Mr. Turnbull.

"A" Pilots. Mr. H. Ellis with Mr. Thirlwell, Mr. P. Forsyth Heppell with Mrs. Heppell, Mr. C. Thompson with Mrs. Heslop, Miss Luckman, Mr. Luckman, Mrs. White, Mrs. C. Thomson and Mrs. J. Thomson. Mr. W. Baxter Ellis with Mrs. Ellis, Mr. R. N. Thompson with Mr. N. S. Todd, Mr. N. S. Todd with Mr. Williams and Mr. A. Bell, with Mr. J. Bell.

Joy rides with Mr. Parkinson:—Mr. Smith, Mr. P. F. Heppell, Mr. H. Ellis and Mr. J. Heppell.

The Club is competing in all events at the Hampshire Meeting and wishes the Hampshire Club every success for their first Meeting. We learn that *The Daily Mail* has arranged suitable weather, which is all that can be added to the excellent Club organisation to ensure success.

The prize list for the Newcastle meeting, on June 11, is now completed, and should prove attractive. The response to invitations to probable competitors has so far proved very satisfactory.

The Yorkshire Aeroplane Club

REPORT for the week ending May 7.—Total flying time for the week, 27 hrs. 10 mins., consisting of:—instruction with Mr. Beck, 14 hrs. 45 mins.; solo flying, 9 hrs. 50 mins.; pleasure flights, 20 mins.; tests, 2 hrs. 15 mins.

Messrs. Wood, Clapham, Norway, Wilson, Fielden, M. B. Lax, Mann, Watson Dawson, Atcherley, and Capt. Milburn flew solo, and Messrs. Thomson Weaver, Batcock, Wilson, R. K. Lax, Watson, Yeomans, Swift, H. Leatham, Briggs, Ambley, Gardener, Oglesby, Miss Watson, and Capt. Milburn flew dual with Mr. Beck. Pleasure flights of 10 mins. each were given to Messrs. Wilcox and Hammond. The rather considerable time shown above for tests was spent by Mr. Beck in going over the course chosen for the competition for Mrs. R. Blackburn's prize.

Last Monday our Assistant Secretary, Mr. Lindesay, nose-dived into the deck from his Levis light motor-bicycle and added considerably to his facial appearance, with the result that he is now undergoing a top overhaul.

On Saturday several noteworthy occurrences happened. Dr. Riabouchinsky a Czechoslovakian Professor of Aerodynamics, who had been lecturing in Leeds, took off from Sherburn with Mr. Wood as pilot at 2.30 p.m. for Oxford, where he was also to lecture. They landed safely at Oxford at about 4.30 and then Mr. Wood set out on the return journey, but being overtaken by darkness, landed and spent the night at Melton Mowbray.

On Saturday, also, Mr. Kittel arrived from Stag Lane at 5.30. On being told that Newcastle was still about another hour's journey from Sherburn, he decided to fly over to Harrogate, which he did, and returned to leave his machine for the night at about 8 p.m. He intends to return to London tomorrow (Sunday).

Also, on Saturday, Capt. Milburn performed a very successful first solo. Capt. Milburn, who lives at York, received most of his instruction from Mr. Parkinson of the Newcastle Club, and was a member of that Club; finding Sherburn more convenient, however, he decided to transfer to the Yorkshire Club, and after arrangements had been concluded between the Clubs, Mr. Beck gave him a little more dual instruction and finally launched him solo.


Air Fatality at Canberra

DURING another ceremony in Australia, at which the Duke and Duchess of York were attending, that of the opening of Canberra, one of the aeroplanes taking part in the aerial display crashed and its pilot, Flying Officer S. E. Ewan, was fatally injured.

The Copenhagen Aero Show

THE International Aero Exhibition which it had been intended to hold in April, but which was postponed at the request of a number of exhibitors and also in order not to clash with other events, has now been definitely fixed for the period August 20—September 2. The exhibition will be held in the "Forum" exhibition building. Application for space must be made before June 15, and the space charge varies from 20 Danish Crowns to 16 Crowns per square metre, according to the size of stand required. All communications to be addressed to the General Secretary, Luftfartsudstillingen, Christiansborg, Copenhagen.

Memorial to Air Research Victims

AIR-MARSHAL SIR JOHN M. SALMOND unveiled a memorial at Cambridge to three distinguished Cambridge scientists, Bertram Hopkinson, Keith Lucas, and Edward Busk, all of whom lost their lives whilst flying during the war. Lieut.-Col. Hopkinson became Deputy Controller of the Technical Department of the Air Ministry during the war and was killed whilst flying from Martlesham Heath to London, at the age of 40 years. Dr. Keith Lucas experimented very successfully with compasses in aeroplanes when attached to Farnborough during the war. He was killed in an air collision. E. T. Busk, 60, was at Farnborough, where he was killed when his machine caught fire in the air in 1914. His special study was the theory of stability, and for his valuable work he was posthumously awarded the Gold Medal of the R. A. Soc.

THE PARIS-NEW YORK FLIGHT

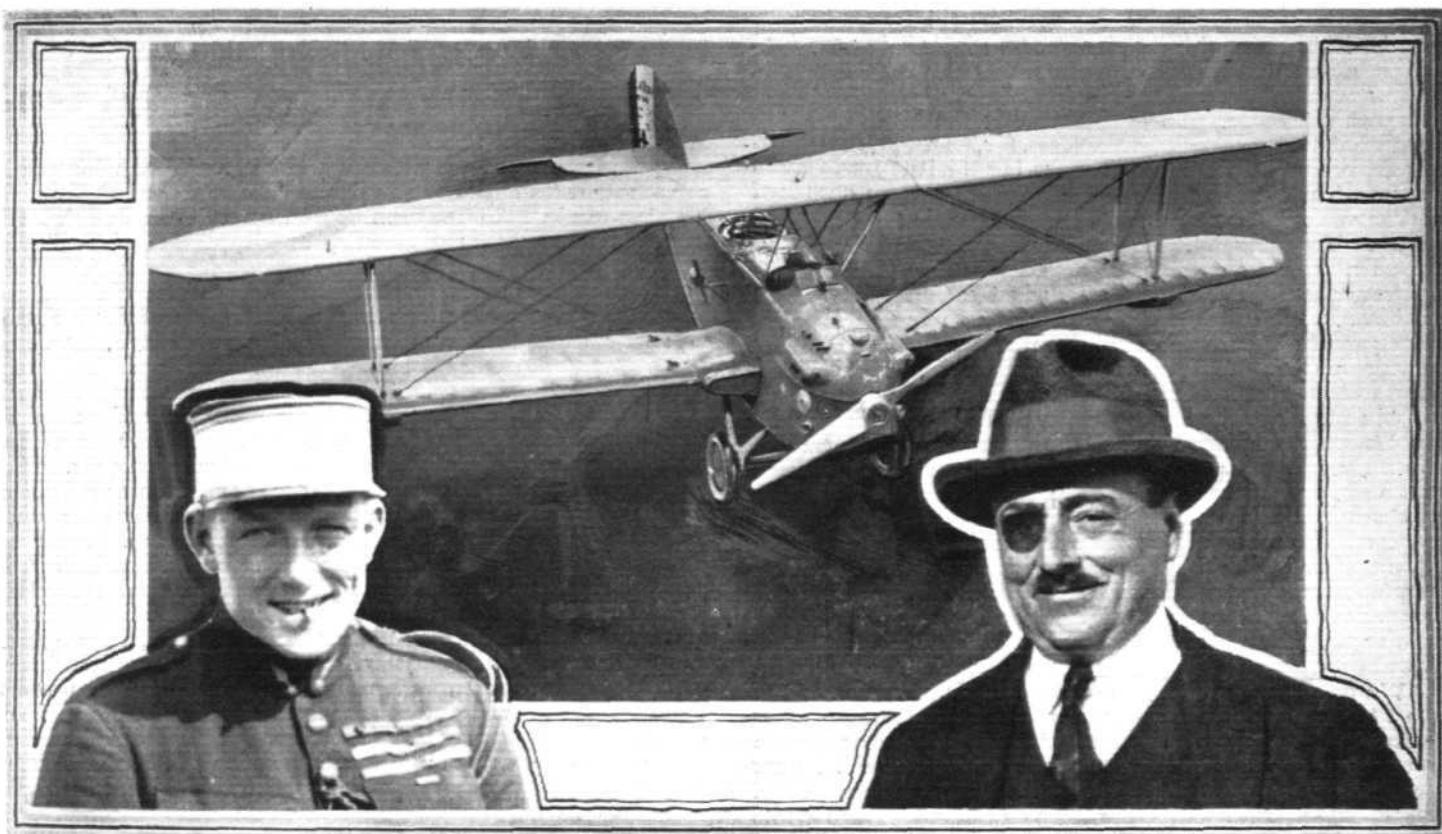
Fate of Nungesser and Coli still a Mystery

At the moment of going to press with this week's issue of **FLIGHT**, mystery surrounds the fate of the two French aviators, Captains Nungesser and Coli, who left le Bourget aerodrome in the early morning of Sunday, May 8, to attempt a direct non-stop flight from Paris to New York. The machine left le Bourget at 5.20 a.m. and, heading for the French coast, the undercarriage was dropped into the Seine not very far from the starting point. After leaving the French coast nothing more has been seen of the machine, although at one time there were a number of conflicting reports to the effect that the machine had been seen in the vicinity of Newfoundland and, later, of Nova Scotia. These reports were afterwards discredited, and at present there is not a single authentic instance of the machine having been sighted after leaving France.

The route which Nungesser and Coli intended to follow was from le Bourget to Barfleur and on to Plymouth, across Cornwall to Trevose Head, and on to the coast of Ireland

herewith. The actual machine used differed somewhat from the standard service type, the main alteration being the suppression of the front cockpit, the space being utilised for extra tankage for the Atlantic flight. The engine was a Lorraine-Dietrich of 450 h.p., of the "broad arrow" type, and fitted, we understand, with an epicyclic reduction gear for the large-diameter Levasseur-Reed airscrew.

A very regrettable aspect of the flight was the joy which false reports of the arrival in New York of the two aviators created in Paris, a joy turned to grief when the first reports were officially denied. The sympathy of all readers of **FLIGHT** will go out to the relatives of Nungesser and Coli in this period of uncertainty, and to all connected with the venture. To our old friend Monsieur Charles Frechet, managing director of the Pierre Levasseur Co., we express our sympathy, but couple with it the hope that next week we shall be in the happy position of being able to record the rescue of the two gallant aviators.



THE PARIS-NEW YORK FLIGHT: Our Photograph shows the P. Levasseur "Avion Marin" three-seater exhibited at the last Paris Aero Show. The actual machine used was somewhat modified to take larger tanks, and the front cockpit removed. The insets show: Left, Captain Nungesser; and, right, Captain Coli.

at Fastnet Rock. Thence the course was to be laid for Newfoundland, Nova Scotia, Boston and New York. At the moment of writing no authentic instance has come to our knowledge of the "White Bird," as the machine was christened (*l'Oiseau Blanc*), having been observed by anyone in England or Ireland. On May 10 the French Embassy in London broadcast an appeal to anyone who might have seen the machine to communicate with them, but so far no reliable report appears to have been received.

The machine used by Nungesser and Coli was a Pierre Levasseur "Avion Marin," a type which this firm was the first to develop, and the main feature of which is a releaseable undercarriage and a watertight fuselage. The type is used extensively in the French Navy, the boat-built fuselage providing flotation upon alighting in the sea, and the absence of the undercarriage enabling a "landing" to be made without the machine turning on its nose. Wing tip floats are fitted so as to give lateral stability on the water. At the last Paris Aero Show a machine of this type was exhibited on the P. Levasseur stand, a photograph of which is given

The Machine

The following brief specification of the Pierre Levasseur "Oiseau Blanc" is based upon data published in our French contemporary, *L'Auto*. Although we cannot guarantee the accuracy of the particulars, we believe them to be reasonably correct:—

Wing span ..	..	14.6 m. (47 ft. 10 ins.).
Wing area ..	..	61.5 sq. m. (656 sq. ft.).
Weight, empty ..	..	1,905 kg. (4,190 lbs.).
Crew ..	..	150 kg. (330 lbs.).
Fuel ..	..	2,800 kg. (6,160 lbs.).
Oil ..	..	80 kg. (176 lbs.).
Food, etc. ..	..	30 kg. (66 lbs.).
Total weight at start ..	..	4,965 kg. (10,932 lbs.).
Power loading ..	..	$\frac{10,932}{450} = 24.3 \text{ lb./h.p.}$
Wing loading ..	..	$\frac{10,932}{656} = 16.68 \text{ lb./sq. ft.}$

QUIRKS FROM THE FOUR WINDS

The Service African Flight

THE R.A.F Fairey III F machines (Napier "Lion"), under Air Commodore Samson, left Pretoria on May 9 in the course of their return flight to Cairo. A mishap occurred at the start, Sergeant Johnson being unseated when one of the machines was dipping in salute and damaging the fabric with his feet as he was flung on his back in the cockpit. The repairs were made in half-an-hour and the flight resumed. Lieut. Macdonald was indisposed, and therefore did not accompany the flight.

Khartum-Kisumu Service

DESPITE the recent bad luck in Western Kenya of the new air line between Khartum and Kisumu, it is hoped that before the end of the year the service will be in regular operation. One machine which came to grief is being repaired in Greece, and it is expected that another start will be made in a few months' time. Captain Gladstone, of the North Sea Transport Company, who is establishing the service, is still very optimistic that it will be a success, for his recent investigations have convinced him that there is sufficient business to be done with Kenya, Uganda, and the north-eastern corner of the Congo to justify expectations of a paying commercial venture. The Tanganyika Government has agreed to participate on a permanent basis. Proposals for the transport of gold from the Kilo and Moto mines in the Congo have been mentioned. It is thought also that the saving in time to passengers should attract European settlers who go home every year.

Pinedo Gets Going Again

THE Marchese de Pinedo resumed his famous flight on May 8 in the Santa Maria II, the new machine sent out from Italy. He left New York for Boston, where he arrived at 11.15 a.m., being met in the bay by two Navy and six Army aeroplanes. He was also greeted by city officials, Rear Admiral Phillip Andrews, Commandant of the Navy Yard, and numerous Italians, and received a very enthusiastic reception. On May 9 he set out for Philadelphia, intending to stop at New York en route, but fog forced him to descend at Norwalk, Conn.

Captain St. Roman Missing

WE regret that the safety of Captain St. Roman who, in spite of the French Air Ministry's ban, attempted to cross the South Atlantic on his "Goliath" with the floats replaced by wheels, is still uncertain. They left Saint-Louis, near Dakar, on May 5, at 7.15 a.m., to cross to Pernambuco, and have not been heard of since. The removal of the floats naturally offered grave risk in the event of a forced descent in the Atlantic. Although wireless was carried and the airmen intended communicating every half-hour, it does not appear certain that any message was received from them at all. The usual unconfirmed rumours have arisen, but the only hope now is the possibility of them landing on a remote part of the Brazilian coast.

U.S. Pan-American Flight Ended

THE Pan-American flight covering 20,000 miles has been completed. The four machines arrived at Washington on May 2, and were welcomed by President Coolidge, and other high officials. The original five Loening amphibians, fitted with 400 h.p. "Liberty" engines, set out from Kelly Field, San Antonio, Texas, on December 21, 1926, under the command of Maj. Herbert A. Darque, and their course lay down the west coast of South America to Chile, thence over the Andes to Bahia Blanca, Buenos Aires, and back up the east coast. It will be recalled that an unfortunate tragedy marred the flight on February 21, when two of the machines collided over Buenos Aires and Capt. Woolsey and Lieut. Benton lost their lives.

The Yugoslav Long-Distance Flight

CONTINUING their flight from Villacoublay, Capt. Sondermeyer and Lieut. Bardac arrived at Karachi at 4.45 p.m. on April 26 after a difficult passage down the Persian Gulf owing to heat, mist and low clouds. They left for Bombay at 9.15 the next morning, but reached Deolali, 113 miles from Bombay, at 2.30 p.m. the same day. An interesting fact is that although in these long flights across so many countries

language difficulties must often arise yet neither of these officers know English or French. Bombay was reached on April 27 and the return flight to Belgrade begun the next day, but owing to sandstorms which forced the machine to land, in order that sand should be cleared from the engine, it took five days to reach that town. On May 8 they landed in the evening and were welcomed by the King, the Prime Minister, members of the diplomatic body, and thousands of people.

Glider Towing Experiments

FURTHER experiments have been carried out in Germany with towing a glider from an aeroplane, to which reference has already been made in these columns. This time cross-country flights have successfully been accomplished, on one occasion a journey being made from Karlsruhe to Frankfurt, with an intermediate landing at Darmstadt; this was followed by a trip from Frankfurt to Cassel. The next step, it is stated, will be to tow two gliders, and then —?

A Gliding Record

IT appears that the world's duration record for an "aerostat-sans-moteur" of 10 hrs. 29 mins. 43 $\frac{1}{2}$ secs. set up at Vauville by Massaux in 1925 has been beaten by a German pilot, Herr Ferdinand Schulz, who recently remained aloft for 14 hrs. 7 mins. near Konigsberg.

A New Balloon Record?

WHAT is claimed to be a new altitude record for balloons was established last week at Scotsfield, Ill., U.S.A., by Capt. H. C. Gray, who ascended to about 41,000 ft.

The Changing East

A STRIKING illustration of the change in modern travel is the journey of Sheikh Hafez Wahba, chief adviser to the Wahabi King, and Lamlouzi, his Foreign Secretary, who, summoned by their master in connection with the negotiations with Sir Gilbert Clayton, the British representative, travelled by car to Basra from the Koweit neighbourhood, thence by air to Cairo, and thus reaching Jeddah in a week instead of taking more than a month in the old-fashioned caravan way.

Two U.S. Pilots Killed

TWO well-known U.S. Naval Flying Officers, Lieut.-Com. Page and Lieut. Pollard, have met their death in a flying accident. They were returning to Hampton Roads when their machine caught fire and crashed in flames.

"Mr. Jones" and R.33

ACCORDING to the "Daily Mail" correspondent, Lieut.-Col. Robert Loraine—the actor-airman, otherwise known, in the early days of flying, as "Mr. Jones"—is negotiating for the purchase of H.M. Rigid Airship R.33. It is not stated for what purpose "Mr. Jones" requires R. 33—perhaps he is considering the use of an airship for a touring theatrical company for light comedy or opera! Why not?

Italian Minister's Air Tour

THE Under-Secretary for Air in Italy, Signor Balbo, completed his visit to the principal air stations in the Italian Mediterranean Colonies and the Dodecanese Islands on May 7. The last stage of his journey from Tripoli to Vigna di Valle, on the Lake Bracciano, near Rome, a distance of 620 miles, was covered in six hours. The air tour has been very successful, and in less than a fortnight he has visited Leros, Rhodes, Tebruk, Bengazi, Jarabub, Ghadames and Tripoli.

Air Survey of N.W. London Boundaries

APPLICATIONS by Harrow, Wembley and other authorities to the north-west of London for the extension of boundaries and redistribution of areas may mean an aerial survey, for the use of the motor-car and existing ordnance maps has been so difficult and unsatisfactory. It is suggested that the expense should be shared by the various authorities.

The Royal Air Force Memorial Fund

THE usual meeting of the Grants Sub-Committee of the Fund was held at Iddesleigh House on May 5. Lieut.-Comdr. H. E. Perrin was in the chair, and the other members of the committee present were: Mrs. L. M. K. Pratt-Barlow, O.B.E.; Mr. W. S. Field; Sqdn.-Ldr. Douglas Iron, O.B.E. The committee considered in all 14 cases, and made grants to the amount of £162 16s. 8d. The next meeting was fixed for May 19, at 2.30 p.m.

THE ROYAL AIR FORCE



London Gazette, May 3, 1927

General Duties Branch

Flying Officer R. Tuck is placed on retired list at his own request (May 1). Flying Officer F. H. Davis is placed on retired list on account of ill-health (May 1).

The follg. are transferred to Reserve:—Class A. Flying Officer J. V. Holman, (May 1). Class C. Flight-Lieutenant T. J. West, M.C. (April 19).

The follg. Flying Officers resign their short service commissions:—J. B. Knocker (Lt., Indian Army, retd.) (April 19); A. L. Ottway (April 20). The short service commission of Pilot Officer on probation J. F. O'R. Coleman is terminated on cessation of duty (May 4).

Stores Branch

Flying Officer R. Lamb is transferred to Reserve, Class B (April 30).

Medical Branch

Flight Lt. R. S. Topham, M.B., D.P.H., D.M.R.E., is placed on retired list at his own request (May 1); Flight-Lt. L. Game is transferred to Reserve, Class D2, and is employed with the Regular Air Force for a period of one year (April 21).

Memoranda

Sec. Lt. S. M. Myles is deprived of permission to retain rank (Jan. 18).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

Flight Lieutenants: D. H. Carey, to Air Ministry Directorate of Training, 7.12.26. T. M. Williams, M.C., D.F.C., to No. 423, Flight, Malta, 21.1.27. W. Underhill, D.S.C., to R.A.F. Base, Calshot, 28.4.27. E. D. Davis, to R.A.F. Practice Camp, Weston, Zoyland, 1.4.27. A. L. A. Perry-Keene, to R.A.F. Practice Camp, North Coates, Fifties, 1.4.27. J. D. S. Denholm, to R.A.F. Practice Camp, Sutton Bridge, 1.4.27. C. F. Horsley, M.C., to H.Q., R.A.F., Middle East, 7.4.27.

Flying Officers: C. J. Stone, to R.A.F. Practice Camp, Weston Zoyland, 1.4.27. T. H. Finney, to R.A.F. Practice Camp, North Coates Fifties, 1.4.27. C. H. Roberts, to R.A.F. Practice Camp, Sutton Bridge, 1.4.27. E. S. Osborn, to No. 2 Sqdn., Manston, 6.4.27. J. W. Vanderbeek, to No. 12 Sqdn., Andover, 14.4.27. E. V. S. Lacey, to Home Aircraft Depot, Henlow, 29.4.27. E. S. Burns to R.A.F. Station, Donibristle, 25.4.27. J. V. Reeve to R.A.F. Depot,

Lt. W. C. Francis is deprived of permission to retain rank on conviction by the Civil Power (April 11).

Reserve of Air Force Officers

The follg. are granted commissions, on probation, in the General Duties Branch in the ranks stated:—Class A.A. Pilot Officer R. P. J. Radbourne (April 20). Class B.B. Squadron Leader C. D. Stewart (May 3). Pilot Officer F. H. Dight (May 3).

The follg. Pilot Officers are promoted to rank of Flying Officer:—J. Hill, C. W. Loftus, R. G. Shaw (April 5); C. W. Carter (April 6); H. S. Fulton, O.M. Sheil-Small (April 7); R. E. La F. Wyatt (April 12); C. Kenny (April 13); L. W. Van Oppen (April 19); D. S. Purnell (April 26). Pilot Officer on probation E. I. C. Wyllie is confirmed in rank (May 3); Flying Officer A. E. Stewart is transferred from Class A to Class C (May 3); Flight Lt. P. G. N. Ommanney relinquishes his commission on completion of service (April 4); Flying Officer H. C. Kelly resigns his commission (Sep. 16, 1926).

AUXILIARY AIR FORCE

General Duties Branch

The follg. to be Pilot Officer:—No. 602 City of Glasgow (Bombing) Squadron. D. F. McIntyre (April 20).

CADET COLLEGE SPORTS

Woolwich, Sandhurst and Cranwell

ATHLETIC sports between the Royal Military College, Sandhurst, and the Royal Military Academy, Woolwich, are an old-established institution. The first meeting took place in 1868, and though there have been breaks in the chain, these sports are practically an annual event. Sandhurst has won 23 times, Woolwich 16 times, and in 1869 there was a tie.

This year for the first time the Royal Air Force Cadet College, Cranwell, became a competitor, and the event was transformed from a duel into a triangular contest. One could hardly expect such a newly-formed college to win the challenge shield at the first attempt, and it would have been no disgrace if Cranwell had been placed at the bottom of the list. It is very gratifying to record that this did not happen. Cranwell secured second place, and though Sandhurst proved easy winners, Cranwell beat Woolwich very substantially. This was a most creditable performance, for the youngest college, and augurs well for its chances in the future. Cranwell only scored a win in one event—the two miles—but it gained four second places and two thirds. Only in three events—the weight, the quarter, and the hurdles—were Cranwell cadets not placed.

When only Woolwich and Sandhurst were in the field, victory went with the greatest number of events which were won, as is the case in the Oxford and Cambridge sports. This year the system of marking was changed, a win scoring three points, a second place two points, and a third place one point. The result in brief was:—

		Wins.	Seconds.	Thirds.	Marks.
Sandhurst	..	7	3	6	33
Cranwell	..	1	4	12	13
Woolwich	..	1	12	1	8

Analysed according to events, the scoring, in marks, was:—

	High Jump.	100 yards.	Half Mile.	Putting the weight.	Long Jump.	Two Miles.	Quarter.	Mile.	120 Hurdles.	Total.
Sandhurst..	5	3	1	4	4	3	4	4	5	33
Cranwell ..	1	3	2	0	12	3	0	2	0	13
Woolwich ..	0	0	3	2	0	0	1	0	1	8

The sports were held at Queen's Club on Saturday, May 7, commencing at 3 p.m. The weather was simply perfect, with a hot sun and a light breeze to keep everyone cool but without making much difference to the times.

The King arrived at 3.15 p.m. and stayed till 4 p.m., walking about on the turf in the centre, mingling with the officials and athletes, and watching the events from close quarters. The box in the grand stand under the royal standard remained unoccupied. For the benefit of those who are interested in sartorial fashions, it can be confirmed by personal observation that His

Majesty's trousers were creased laterally and not directionally. Among the other persons present were Sir Philip Sassoon, Air Chief Marshal Sir Hugh Trenchard, and Air Commodore Halahan, O.C. Cranwell. The judges were a very strong lot. Only elderly followers of athletics can remember how many inter-Varsity and Oxford records were put up in his day by the Rev. W. Pollock-Hill; but all the present generation are familiar with the names of H. M. Abrahams (who had damaged his undercarriage and judged from a chair), D. A. G. Lowe, and A. E. Porritt.

The sports opened with the High Jump, which at Queen's Club is always held in a corner of the ground and is more or less invisible to most of the spectators. The record for this event is 5 ft. 10 ins., put up by a Sandhurst cadet in 1925. This year E. S. O. Congdon of Sandhurst cleared 5 ft. 9 ins., which was very creditable. J. B. Harrison of Sandhurst was second, while the third place went to J. G. W. Weston, a very lengthy flight cadet from Cranwell, who got up to 5 ft. 5 ins., jumping in a very easy style. Thus Cranwell lost no time in breaking its dock, and getting its nose ahead of Woolwich.

The 100 Yards was quite a good race. J. M. Mott of Sandhurst won, by about a yard, in 10.1 sec. Cranwell secured both second and third places, thanks to J. B. Chalmers and N. E. White, and so for that event scored as many marks as Sandhurst.

The Half-Mile brought Woolwich its first score and its only win. R. F. Walter won in 2 mins., 21 sec., but J. W. Gillan of Cranwell was a good second, and C. G. Lipscombe of Sandhurst was third.

Putting the Weight is another hole and corner affair at Queen's Club, and not much could be seen of it except by a few. Cranwell failed to score this time, although one of its representatives bore the auspicious name of Dillon Trenchard. Sandhurst scored first and third places, and Woolwich was second.

Next came a heat of the 120 yards hurdles, in which the three second-string men ran, the winners qualifying for the final. The reason for this arrangement is that the cinder track at Queen's Club just takes four hurdles abreast. I. L. Fleming of Sandhurst came in first, and so the R.M.C. had two strings in the final. No marks were given for the heat.

The Long jump provided a good contest between K. F. Marks of Sandhurst and N. E. White of Cranwell. Each cadet did best with his second jump, Marks winning with 20 ft. 54 ins., and White being second with 19 ft. 8 ins. W. S. Beamish of Sandhurst was third.

The two miles was Cranwell's great triumph. For seven laps H. R. Dale of Cranwell and R. F. Parry of Sandhurst raced level at the head of the field, with G. H. March-Phillips of Woolwich occasionally disputing the lead with them. The pace was too hot for the second and third string men, though for a considerable distance the two other Cranwell runners kept together not far behind the leaders. Parry led most of the way, and whenever Dale forged ahead, Parry would sprint and regain the lead. Half-way round the last lap it looked as if both leaders might come in close together. But suddenly Dale began to sprint. It was an amazing effort. He ran as if he were merely in a half-mile race, and simply left the Sandhurst runner far behind. The crowd roared in amazed appreciation of such an effort, Army supporters cheering the winner as loudly as the R.A.F. men did. The third placed, rather unexpectedly, went to S. W. Walsh of Sandhurst. He had spared himself for a while and lain far back. But as the rest of the field tired and strung out, Walsh came up with a rush, passed March-Phillips, and finished an easy third. Thus Cranwell and Sandhurst each scored three points on the deal. Time, 10 mins. 22 sec.

Up to this point Sandhurst had notched 20, Cranwell 11, and Woolwich 5. But Sandhurst piled the points on in the last three events.

The Quarter Mile produced almost a dead heat between M. B. Coleman of Sandhurst and R. L. Berridge of Woolwich. The Woolwich man looked a winner, but was run out and could not spurt. The judges, after some discussion, gave the race to Sandhurst, and the same college also got third place.

The Mile also produced a very fine finish. It was a good race all through with constant changes of position. A. L. Weait of Cranwell (also an old boy of Cranwell School) started off with the lead, and then dropped back to fourth place. T. T. Body of Sandhurst hovered between first and third place, while for most of the race two Woolwich brothers named Block kept steadily together not far behind whoever was leading. In the last lap Body and Weait both began to run, and were soon well clear of the rest. Weait made a good effort to get ahead and take the inside place for the last two corners, but Body responded and just succeeded in keeping the inside, which made all the difference. Weait was moving the faster of the two as they came into the straight, and looked likely to win. But the effort exhausted him and the Sandhurst man won a very well-judged race by a narrow margin. On breaking the tape he dropped on the turf, dead beat. The Sandhurst second string came up from well in the rearguard to gain third place. Time, 4 mins. 39 $\frac{1}{2}$ secs.

The last event was the final of the Hurdles. Sandhurst scored first and second places, and Woolwich third. The Cranwell hurdler, P. J. H. Halahan, fell.

Lady Trenchard then presented the medals to all winners and seconds, and finally presented the challenge shield to J. H. Mott on behalf of Sandhurst, and he in turn called for three cheers for Lady Trenchard. So ended a very enjoyable afternoon of sport, in which Sandhurst and Cranwell, at any rate, had very good reason to feel satisfied with their athletes.

F. A. DE V. R.

IN PARLIAMENT

Royal Air Force Cardington Works

SIR FREDERIC WISE, on May 2, asked the Secretary of State for Air the cost to date of the Cardington works and the estimated future cost to complete the works?

Sir Samuel Hoare: The cost of the works services at Cardington involved in the airship development scheme of 1924 is £155,800, made up as follows: Alterations to airship shed, £100,000; mooring mast, £50,000; cost of water supply and electrical equipment, £5,800.

Of the above sum, £147,800 has been actually expended; the balance of £8,000 will be expended on completion in the current year.

Full particulars are given of further expenditure on page 32 of current Estimates.

Air Mail

COL. DAY, on May 3, asked the Postmaster-General the number of letters, or parcels carried by air mail from England to France, Belgium, Holland, and Germany for the three months ended to the last convenient date, giving figures for the comparable period 1926?

Viscount Wolmer: The estimated number of letters and the actual number of parcels carried by air mail to the countries mentioned during the first quarters of 1927 and 1926 are as follows:—

	Letters.	Parcels.	Letters.	Parcels.
	1926.	1927.	1926.	1927.
France	5,410	4,460	893	730
Belgium	520	1,670	No service.	
Holland	1,460	1,790	310	382
Germany	1,190	2,960	236	544

Royal Air Force Contract Work

MR. BUXTON asked the Secretary of State for Air what is the value of the work proposed to be given out to private contractors in the current financial year under the following headings: technical and warlike stores, works, buildings, and lands?

Sir S. Hoare: The approximate expenditure on contract work during the financial year is estimated as follows:—Technical and warlike stores, £7,700,000; works, buildings and lands, £1,800,000.

Airship R. 101

MR. WELLS, on May 4, asked the Secretary of State for Air how much money has been spent on the preliminary experimental work in connection with the proposed Airship R. 101; and what the total cost of building this airship is likely to be?

Sir S. Hoare: The expenditure on experiments and research in connection with airships is approximately £260,000, spread over the last three years. As regards the second part, the actual building of R.101 (labour and materials) will involve, it is estimated, a sum of £280,000.

Sir F. Wise: When will R. 101 be launched?

Sir S. Hoare: I have already stated that I hope that sometime during next year both airships will be flying.

Captain Crookshank: Is not one of the measures of disarmament now under discussion at Geneva the total abolition of all airships in all countries?

Sir S. Hoare: No, sir. I do not think that arises out of this question, but the answer is in the negative.

Mr. Wells asked if the final design of the proposed airship R.101 has been approved; and if he is allowing for considerably greater structural strength than was at first considered necessary, in view of the fact that the airship company building the R.100 consider it necessary to build at twice the strength originally planned?

Sir S. Hoare: As regards the first part of the question the designs of both the R.100 and the R.101 are being examined by two distinguished scientists of great experience in such questions, and until their examination is concluded formal approval of the designs cannot be finally given. As regards the second part, I understand from the information already supplied in connection with the examination above referred to, that the designers of both airships are working closely to the scheme of factors of safety laid down in the Report of the Airworthiness of Airships Panel of the Aeronautical Research Committee.

Mr. Wells: Is there close co-operation between the airship company and the Government in the designing of these two airships?

Sir S. Hoare: Yes, so far as I know, very close.

Commander Bellairs asked whether the erection of the structure of R.101 has yet started; and, if not, on what date erection will be started?

Sir S. Hoare: Erection of the hull cannot begin until the transverse and longitudinal girders are ready for assembly, the procedure being to assemble the shorter girders into transverse rings on the ground, sling them into upright position and join them together with the longitudinals. Work on the girders is proceeding and assembly will begin, I hope, very shortly. As I stated in the House on March 17, a great deal of work has been done on the construction of the component parts.

Commander Bellairs asked whether the official opinion is still adhered to that R.101 will be able to carry 200 soldiers, together with a whole squadron of aeroplanes; if so, what weight will be available when carrying this load for fuel crew and ballast; and what is the estimated distance she could fly with such a load?

Sir S. Hoare: As regards the first part of the question, you are apparently under a misapprehension; the official opinion, as expressed by me in the House on March 10, last, was that the R.101 should be able to carry 200 soldiers or alternatively a squadron of aeroplanes. As regards the remaining parts, I would refer him to the reply which I gave on March 17.

Mr. Wells: Is R.101 being designed to carry aeroplanes?

Sir S. Hoare: Yes, Sir.

ROYAL AERONAUTICAL SOCIETY

(Official Notices.)



Award of the Gold Medal.—At a Council Meeting of the Royal Aeronautical Society it was unanimously decided to award the Gold Medal of the Society to Dr. L. Prandtl in recognition of his remarkable outstanding work on aerodynamics. The occasion of the delivery of the 15th Wilbur Wright Memorial Lecture by Dr. L. Prandtl will be made use of for the actual presentation of the highest honour the Society can confer. The Gold Medal has now been awarded to the following:—Wright Brothers, May 3, 1909; Professor Chanute, October, 1910; E. T. Busk, and Professor G. Bryan, May, 1915; Professor Lanchester, May, 1926; Professor Prandtl, March, 1927.

Dr. L. Prandtl, of Gottingen University, who will deliver the 15th Wilbur Wright Memorial Lecture at 6.30 p.m. on Monday, May 16, at the Royal Society of Arts, 18, John Street, Adelphi, W.C.2, will show not only a number of photographs, but a cinematograph film demonstrating the flow round bodies. As the lecturer is the greatest aerodynamical authority in the world on this subject, so is the lecture one of outstanding importance.

Wilbur and Orville Wright made flying a practical possibility with the machine they designed and first flew in 1903. Dr. Prandtl, working in parallel with Lanchester, made it possible for engineers to understand why and how an aeroplane flies. It is the unanimous opinion of all British scientists and engineers that Dr. Prandtl is the leading authority today in the world of aeronautical science. This opinion has found expression in the invitation of the Council of the Royal Aeronautical Society for the first time outside Anglo-American circles that Dr Prandtl should deliver the lecture in memory of Wilbur Wright. As the Wright Brothers first made practical flying possible so Prandtl has made possible an understanding of how and why the air sustains aircraft in flight. The lecture is necessarily couched to some extent in the terms of descriptive physics, but is of a non-mathematical nature.

J. LAURENCE PRITCHARD, Secretary.

PUBLICATIONS RECEIVED

Camera, Air, Type P.7. (Formerly L.B. Type Aero Camera.) Air Publication 79. H.M. Stationery Office, Kingsway, London, W.C.2. Price 1s. net.

Aeolus, or the Future of the Flying Machine. By Oliver Stewart. Kegan, Paul, Trench, Trubner & Co., Ltd., Broadway House, 68-74 Carter Lane, London, E.C. Price 2s. 6d. net.

Revue Juridique Internationale de la Locomotion Aerienne. January-February-March, 1927. Per Orbem, 4, Rue Tronchet, Paris.

National Physical Laboratory Report for the Year 1926. H.M. Stationery Office, Kingsway, London, W.C.2. Price 7s. 6d. net.

Manual of Air Pilotage: 1927. Air Publication 1234. H. M. Stationery Office, Kingsway, London, W.C.2. Price 2s. net.

NEW COMPANIES REGISTERED

TRANSAERIAL, LTD., 45, Whitcomb Street, W.C.2.—Capital £1,000, in £1 shares. Carriers and transporters of passengers, goods, and articles of all kinds, mails, etc., wholly or partly by means of aerial navigation, tourist agents, etc. Permanent directors, H. W. Watts, E. Higgs.

H. & M. PATENTS, LTD., 11 & 12, Carlton Chambers, Albion Street, Leeds.—Capital £100, in £1 shares. Aeronautical and motor accessory engineers and manufacturers of carburetors applicable to motor cars and aeroplanes, etc. Provisional directors, J. L. Harle, H. F. McDowell.

AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.)

APPLIED FOR IN 1925.

Published May 12, 1927.

26,121. S. G. SWEET. Rotary i.c. engines. (268,493.)

APPLIED FOR IN 1926

Published May 12, 1927.

8,448. H. O. SHORT. Means for elastically connecting landing-gear to aircraft. (269,315.)

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